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CONSTANT FACTORS

5 The Amiga Dimension

Should an Amiga magazine cover non-Amiga systems? Managing Editor Antony Jacobson find there's a bigger computing world out there.

8 SuperDisks No.69 and No.70

Again **AUI** has voyaged through Amigaspace to bring you back the hot-test utilities around and a game to make you sit up at night locked to your Amiga even while a passionate partner waits anxious to play other games with you.. This month the SuperDisks include a sneaky encryption utility, painless batch renaming, talking requesters, animated pointers plus a surefire lottery winning program that will have you weeping - with laughter - all the way to the bank and lots more of the sweetest goodies around. The game? The Art of Rocketry, an absolutely stupendous Thrust clone. Thrust... You and your passionate partner will love it!

14 NewsFile

Where the action is hot-test and the news the coolest that's where Anthony Mael and Martin Witton intrepidly venture. There they dig and unwrap, investigate and scoop out the heart of what's going down and what's going on and who's going up and what's falling sideways in the hazy, mazy, crazy world of what passes for the computing industry but is merely a simulcrum of what we all find so hard to deal with - reality. The result? The NewsFile. Read it if you dare!



71 Amiga Answers

If you have a technical question, if your Amiga is keeping you awake at night and makes you want to sneeze, wheeze or buckle at the knees see, or rather write to, the Answer Doctor. The Amiga Answer Machine himself, none other than Andy (Give me your set up) Eskelson, the Man Who Knows is **AUI**'s answer to a world of problems - your problems. Like so many others have done, you too can ask him to solve them for you. And he will.

85 Write to Reply

Do not, you were warned in the past, get across the man with venom running through the Vennos veins. Vicious, viperish violent, even voyeurish - but don't tell She Who Must Be Obeyed - that was the reputation truly earned by our repplier of readers' writes. Now is he turning into a purring pussy? Has the bile seeped away? Is the vile, erstwhile virile Vennos visibly virtuous? Is it victory to the vixen (SWMBO)? Follow the great Bud Saga - he's ageing fast - as the man in BV's pants answers to the universe.

94 The PD Stakeout

While the rest of the Amiga world goes short and is on scant rations, the PD scene is still rich - in a cheap way, if you see what we mean. This month, holstering up to ride the PD range, it's Sheriffs Michael Rumbelow and Mark Blackham staking out **AUI**'s pages with enough horns waggled critters to satisfy a hungry possee of saddle sore deputy users.

TEST DRIVE

28 A Rather Special Drive

Andy Eskelson goes test driving.. He finds that Panasonic are offering a very special cdual format drive that brings the Amiga technology to a new stage of speed and even perfection.



32 Cybervision 64

"When I'm 64" warbles Gary (I'm a right Netter) Fenton clutching to his very graphical heart a magically alchemical board that turns the dross of ordinary computing to the colourfully fantastical gold of real art. This Test Drive of Phase 5's hot new add-on is no everyday affair, Fenton is in love.



34 Mixing It Up

You won't be confused by Mark Blackham's investigation into the unmixed up world of Mixers. You will, as he test drives three that will make your ears but not your pocket sing, find the world of Amiga sound a much clearer place.

55 SoundFile

Mark Blackham (R.I.P.) lightfooted and lightheaded dances to a different drum. He test drives a trend-setting musical production that may just get you doing the Chicken Run out there on the floor around your handbag too.

USER PORT

60 Online - The Internet Column

This month the team of MW@AUI, Mael Anthony and Witton Martin travel further along the SuperHighway than this magazine or probably anybody has ever gone before. Onlining with reports of entertainment giant Time Warner trying to scoop up the Internet to bookstores giving up hard copy and getting netted, they pick up some pretty but odd galaxial hitchhikers on their voyage into the modem world.



86 Artificial Eyes

AUI welcomes a computerised Rembrandt right into the throbbing art of the technological aesthetic as a talented Amiga user, Paul Hamilton, makes an exhibition of himself in deepest Devon.

HARD COPY

50 Mastering Amiga Programming Secrets

Edmund Dumbill reviews a book that could make an expert out of a beginner, that's if a beginner were bold enough to read it. Who is this expert-creating author? None other than **AUI**'s own Paul Overaa!

MENTOR

52 Programming Tips

More problems can be cured and time saved with Paul Overaa's invaluable tips on programming than by all the sexstarved nurses at University College Hospital and all the horologists who work for Swatch.

54 ARexx Info

As Paul Overaa has made clear on a multitude of occasions, ARexx is one of greatest advantages that anyone can have in using a computer system. Once again he provides another tip on just how you can make use of this powerful language.

FIELD REPORT

42 InterActivity

Starstruck Michael (Don't Call Me, I'll Call You) Rumbelow goes Showbiz.. He interviews a onetime Pop star - now an Amiga user of international fame - turns kid at a museum where the Amiga literally plays a leading role and reveals all... Well, reveals that interactivity, Amiga style, is taking over the TV channels of the world.



88 Entertainment Now

Mark Blackham and Michael Rumbelow take up some dangerous sports starting, we kid you not, with Basejumpers where people leap off buildings shouting Bungee or is it Banzai? They then adventure forth, or fifth, with Bravo Romeo Delta, get warlike with Blitzkrieg and White Death, speed up with Turbo Trax and call out MI5 for Subversion. That's entertainment, folks. Or that's what Blackham and Rumbelow claim.

AUI SERVICES

48 Subscribe!

How and why to subscribe to the greatest Amiga magazine ever - you get a smashing free racing game for a start!

77 Back Issues

Despite being desperately ill, you crawled down the road, coughing and spluttering, to get to your local newsagent for a copy of **AUI**. They were sold out. Of course. You should have subscribed, shouldn't you? You still want that issue? Here it is - put aside just for you, and your £5.

104 Arena

The Arena has been expanded still further to fit the huge number of eager companies wishing to show off their stunning products. Peruse and choose.

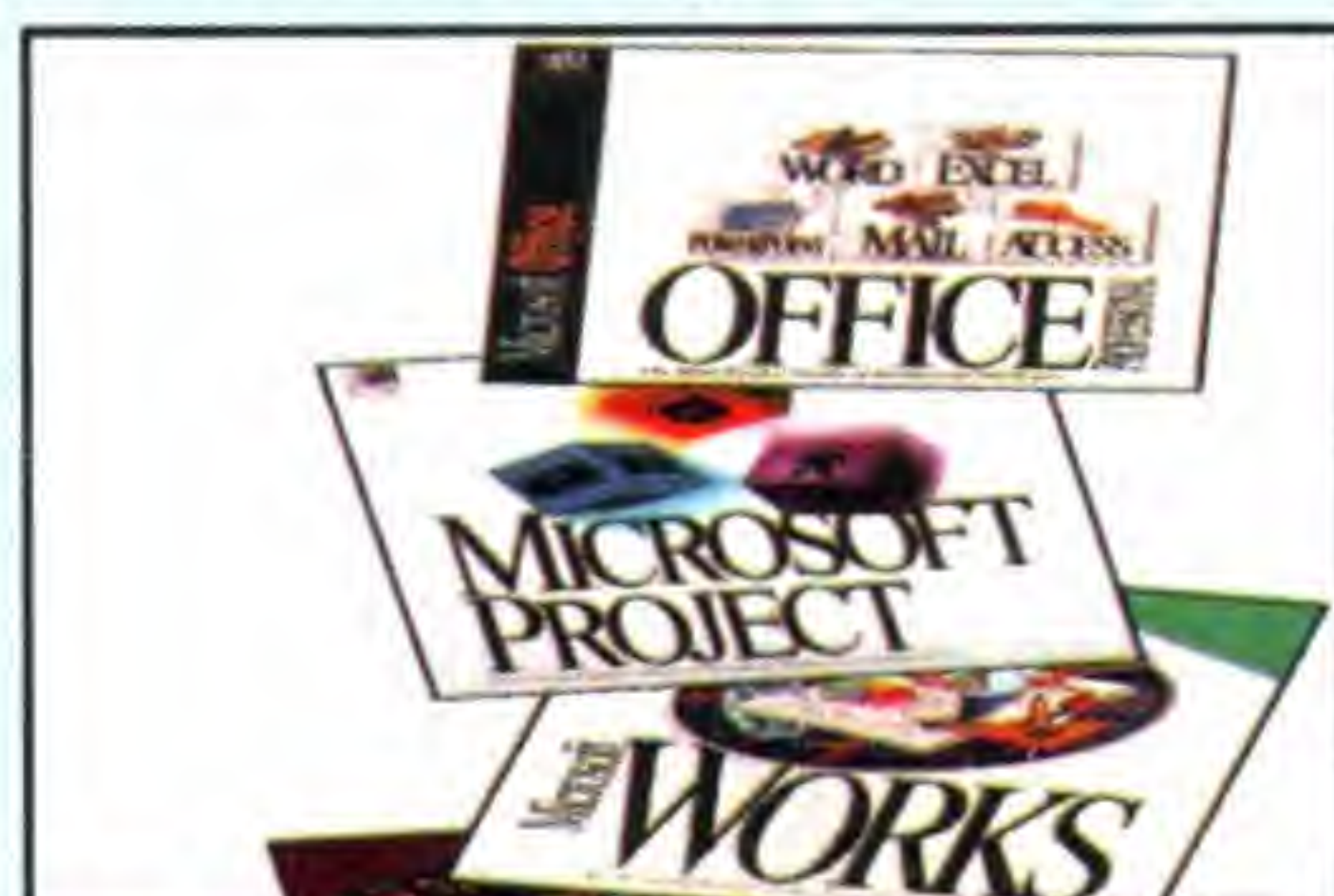
111 Advertisers Index

Where you can find those who want you to know what you want to buy when you need something to help you know more about the Amiga..

SPECIAL REPORTS

56 Windows on the Future?

Antony Jacobson leads the **AUI** readers into unholy ground.. PCland. He investigates the over hyped entry of Microsoft's up-graded operating system, whizzkid Billionaire Gates' aims at world domination and the possible effects on the Amiga.



64 Into the TechnoWorld 2

Martin Witton ever eager to try something new gets you accompanying his strange desire to experience even more of the novel by plunging you back into the TechnoWorld. In the second and final part of this Special Report He leads the **AUI** team of Witton Wanderers through the most extraordinary discoveries of what's happening in the next stage in techno development. Read, he says, and wonder - or does he mean, wander - at what they are getting up to with YOUR world.



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Copyright
AUI Limited

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Pear Tree Road, Bradley Stoke,
Bristol BS12 0BQ
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Published by AUI Limited

Origination and Colour Reproduction:
Ford Graphics, Fordingbridge, Hants.

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V32/288 Fax Modems.

Distributed by COMAG Ltd

Amiga User International - an independent maga-
zine for Amiga computer users - is not connected in
any way with Amiga Technologies. It is published 12
times per year on the first Thursday of the month.
The publishers do not accept any liability for any
incorrect statement or errors contained in material
that may be produced from time to time.

Printed in the U.K.

The Amiga Dimension

In this **AUI**, we have a full scale article on the launch of Microsoft's Windows 95. Please, no cries of "Shame! This is an Amiga magazine!" This certainly is an Amiga magazine but one, if we are to listen to our readers, that is very different from all other Amiga magazines. Over the years we have, it seems, developed into a publication that leads the way not only in matters Amiga but also in informing an intelligent readership of the many and varied aspects of computing. And that is true especially of anything, even if it apparently outside of the immediate scope of the Amiga that will possibly have an affect on us as Amiga users.

I believe the Amiga will be affected by Windows 95. That's not because I think that Microsoft's much hyped upgrade is of high quality or in any way is superior to what the Amiga can provide. It is because, for the first time perhaps, the general public has been made aware, by a supremely well-coordinated and financed marketing operation of a change, or an apparent change, in the way the world works that has been brought about by computers - PCs.

Most change of this kind takes place over a period of time and the public hardly notices but this introduction of what is only an upgrade has been made to seem a world-shaking event. That's why I wrote the story and I hope you will find that it covers aspects that might not have been found in the super coverage that Windows95 attracted.

While I don't much care for the Microsoft program or for the PC at all, I believe that we have to take notice of what is happening in the real world and undoubtedly the real world is very much going to be influenced by the brilliant marketing operation that was carried out by Microsoft. That affects us as Amiga users because it will cause the Amiga, whether we like it or not, to sink into further comparative obscurity. If it remains there depends on the efforts and the investment that ESCOM makes in the Amiga.

One reader in this month's Write to Reply opines that the Amiga is dead. We all hope he is wrong but the world is changing more and quickly toward the PC. And that will very likely affect the view of ESCOM on the Amiga's future.

I was told by the boss of a multimedia company recently, when I rather dismissively said that CD-i was old technology and falling away with the competition of Sony, Sega, 3DO and naturally the PC, that the CD-i is emerging as a strong contender for the set top market. I seem to have heard the same thing about the Amiga from ESCOM just after the takeover. Is the set top market really going to be a big market or just a refuge for technologies that can't take on the competition at the retail level? It won't do us a lot of good if the Amiga is only successful in an anonymous box, will it?

With £600 million or so being spent on the promotion of Windows 95 by the end of this year and ESCOM not even proposing to put the Amiga into advertising on TV the odds seem stacked against us.

However, nothing is forever. It might look like Microsoft and Windows 95 are all conquering at the moment. Nothing can stop them. They will dominate and swallow us all for the foreseeable and the unforeseeable future. That's not though the opinion of everyone. The boss of a company called Oracle for one.

Oracle is a company that bases its business on networking of applications, especially databases that are used by more than one computer. Oracle's view, stated at a conference at which Microsoft's Bill Gates was an interested listener too, was that the day of the PC was over. Yes, I'll say that again, the day of the PC is over. The PC is dead.

Now that might be just the slightest of exaggerations but what they meant was that the way that electronics is moving is toward on-line type solutions. This means that complex software does not have to be held in relatively expensive PCs but back at base in the heavyweight servers used by on-line suppliers such as CompuServe. The machine used by the home or business user can be little more than a, relatively, dumb terminal. And such terminals cost much less that the PCs being required to use software like Windows 95.

Bill Gates who also spoke at the conference did not make much of reply to this attack on the idea of Microsoft's potential world domination. He seemed taken by surprise. It must be awful to believe that you have the world by the tail and then to be told that you are only holding onto a piece of mangy fur.

As I said earlier, nothing is forever. And that goes very much for computing. And maybe we will see big changes that we don't expect much sooner than we could predict them. And that could be true even for the Amiga as well.

Antony Jacobson
Managing Editor

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AMIGA

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INTERNATIONAL

This month Gideon (Prince of Diskworld) Overhead provides you with another sackful of honey-sweet goodies gathered by this busy bee of the all that's best in the Amiga utilities dimension plus a smash hit game for your delectation.

AUINOV95a

*The Great AUI
Utilities Disk
No.1*

CheckSYS

This is the first of six excellent utilities from Imdad Shah. CheckSYS is a CLI utility which can make decisions for the user. It is especially useful in installation scripts. It can check the status of various aspects of your system and can let the script proceed depending on what it finds. CheckSYS can find out if your disk is write protected, if you have the right processor, the right Kickstart, the right amount of memory, plus many more very useful aids to help you along the way. Well done, Imdad Shah.

NTSC and PAL Mode

These two programs are crude hacks that change your screen mode from 50hz PAL to 60Hz NTSC. In certain situations your machine is faster in 60Hz. The NTSC screen size used to be the reason why games on PAL always had that gap at the bottom of the screen. Programmers are cleverer these days.

Use this program at your own risk though! But enjoy it!

Pick

Pick will select a line from an ASCII file and redirect that line to any output device such as a printer or to RAM. You could use this utility to choose a picture or sample to play at random, but there are many

other uses. We're sure you'll find them.

Style

Style is a CLI utility which changes the style of text in the CLI. This can be done with ASCII codes but who can remember what they are? Style simplifies it. They used to say you've either got or you haven't got Style... Now you have.

Hideit

Hideit is an exceptional encryption program which is used from the CLI. It is claimed to be, and we're certain anyone who tries to break it will find it, extremely powerful.

DrwSize1.32 and FileSizeV1.2

These two utilities when run will be selectable from the Workbench tools menu. The Drawsize util will tell you in a window the amount of bytes inside a selected drawer. FileSize will do the same but with files. We use this information at AUI and find it very helpful.

Nopainrename

This program is useful if you want to rename a large number of files in one go. It will appeal to people who use something like LightWave who want to convert many files to a different name.

SpeakEasy

This pointless(?) utility is just good wholesome fun. Yes, sometimes wholesome can be fun! All SpeakEasy does is make your Workbench requesters speak. (Shut up! Shut up!) This will probably get quite annoying after a while but could be useful, I guess. Can anybody think of a use? Speak now or forever hold your peace!

AUINOV95b

*The Great AUI
Utilities Disk
No. 2*

Assigner

If you are running a program which needs a font or a library that is not



SuperDisks No.69 & 70

present in the assigned directory, you will have either to copy the libraries or fonts into the right directories or add an assign. To do this you have to open a CLI and it can all be a bit of a hassle. The program Assigner makes it a lot easier by providing you with a GUI. Now wouldn't you rather have a GUI than all that trouble?

A1200HDPatch

Some A1200s with hard drives and no memory expansions occasionally have trouble booting.

Real Time Mem

Fast Memory : 0
Chip Memory : 972136
Total Memory : 972136

Apparently this seems to happen with some Conner hard drives. This patch fixes this problem. Don't say we don't try to help everyone.

CDROM_WB

This utility allows you to boot your Zappo CD Rom drive from Workbench.

Previously the only way to boot it was a reset with the mouse button held down. As the Zappo, produced by the now lamented ZCL seems to have been the most suc-

a little boring. Here is a program which allows you make it a little more animated. The first is a clock with a rotating hand, and the second is a sand clock where the sand drops and then turns around.

Now that's what we call progress! We hope you feel the same way too about clocks..

Realtime

The meter on your Workbench title bar is quite accurate but very slow in updating. Realtime updates almost instantly. Well, instantly.

Timer

Timer is a very simple utility which counts down a specified figure on the Workbench. After which time it will beep. This is useful for timing eggs etc.

You do boil eggs while using your Amiga, don't you?

MINILottery

This tiny program will choose your lottery numbers for you and display

Mini Lottery

These are your numbers

38

26

9

20

41

2

cessful CD-Rom drive for the Amiga there should be plenty of you who can use this utility.

Sleeping Pointers

Some people in the **AUI** office - we won't name names for small fee - find the sleeping clock pointer is

them as a requester on your Workbench screen. After which they can be saved as a text file in your RAM disk. You can then print them out if you want to. (10% of your lottery winnings donated to the **AUI** Fund for Staff Holidays in the Bahamas would be appreciated.)

AUINOV95c

The Great AUI Games Disk

The Art of Rocketry

Thrust on! As the actress said to the bishop. The Art of Rocketry, a fantastically cleverly programmed game, should work on most Amiga systems. It even runs from floppy on an unexpanded A600. That's sharp programming, that is.

The game was developed on a bog standard A500 and should work on that too. It is similar to Thrust on the old C64 but is very much more enhanced. It is extraordinarily smooth, fun and playable. The graphics and sound are also first rate.

I do recommend you register The Art of Rocketry if you like it because not only will you receive many more levels, you will also get a neat little Tetris game called Tritus which is without a doubt the best Tetris clone I have ever seen. Take your chance and for a few

Booting from floppy

Both The Art of Rocketry and Lottery Pro as well as being run from hard drive, can be booted from floppy. However, you must make sure the disk is installed. You can do this in one of two ways. If you know how to install a disk from the CLI then you can do that. Alternatively, you can insert the freshly completed **AUINOV95c/d** disk into DF0 at the installation screen and press "I" and return to install the disk. The drive light will flicker and the disk will now be become bootable. Easy

pounds you can get into something outstanding. The playability is top notch.

AUINOV95d

The Lottery Pro Disk

At the moment in Britain is going lottery crazy. So it seems are

LOTTERY PRO v1.2

- (1) RANDOM NUMBER
- (2) BONUS NUMBER
- (3) FIRST SIX TO THE LINE
- (4) 6-1000 RANDOM NUMBERS
- (5) LET FATE DECIDE THE GAME

SUPER FAST MOUSE

Amiga owners who are creating lottery programs, the best of the bunch appears on **AUNOV95c**. Lottery Pro contains 5 different ways of choosing 5 random numbers.

The first is the simple 5 random numbers instantly generated by the computer.

The second selects a bonus number for you.

The third creates a number of lines the screen. They progress up the screen, each of them getting longer by a random amount. The first six to the line are your numbers.

The fourth way generates 1000 numbers. For each six numbers generated it stores the 1000 numbers in an array then searches through the array to find the number that came up the most frequently out of a 1000 random numbers.

The author won 10 pounds using this system!

The fifth and final way is the most fun, but takes the longest to complete. You play 5 small games and get a number for each. The outcome of each game affects the number with which you end. The author suggests that all winners are obliged to Register! (And, of course, it's that 10% for **AUI** Bahamian holidays too!)

Lottery Pro requires 2 megs of chip memory both to de-archive and run. If you have more than 2 megs, then you can also run it from hard drive, otherwise you'll have to run it from floppy. Win! Win! Win!

AUINOV95e

**The Great AUI
Utilities Disk No. 3**

Dolcon14

If you want to know something about an Icon, Dolcon can tell you. Its main features are:

Displaying of icon related values: type, default tool, stack size, highlight method, position, dimensions, tooltypes and number of bit-planes.



Manipulation of the above listed values. Copying of stacksize, type, position, default tool and icon image into an other icon. There are many more features not listed here. It's a whole bundle of delights this one. Read the documents for more info. You'll be amazed.

Erase

First and foremost we must warn you to be VERY careful with this program.

This is a utility which erases files so they cannot be recovered. (Good for getting rid of those compromising notes from your little black book.) It's also useful if you have some sensitive documents that you don't want the world to see again. Saves you chewing up their hard copy, doesn't it?

The erasing is done by the program writing different data over the file and then deleting it. You will then just recover garbage if you then run an undelete program. Be careful but it's something that can be very useful - in the right circumstances.

There is a story of a drug pusher who thought he had deleted all the names addresses of his contacts from his computer when the Fuzz got him. He was

soon in deep trouble when they found that the deletion was only of the file name!

Gzip1.2.3

Gzip is another archiving program but a good one. It happens to be the Internet standard and there are versions on nearly all platforms. You probably will never have to use this program if the only binary you are getting from the Internet is from the Aminet collection as that uses LHA. However, GZIP is used at most FTP sites and has the extension "gz". Get on the Super-Highway and don't lose your Grip!

8n1

8n1 is a replacement driver for the standard serial.device. It has been specially optimised for use with high speed modems such as V34. Another development to help you along the SuperHighway.

Uppername

This is another tiny util which just converts a file name to uppercase. Yes, that's it! You may find a use for it though.

HDENV

On bootup the contents of your ENVARC directory is copied to ENV which is usually in your

RAM disk. This takes up precious memory. Using HDENV you can store the ENV directory on your hard drive. Now that's useful! And saves that valuable memory for other more important purposes.

MouseCasePrefs

This utility from Germany allows you to load certain programs when a particular combination of buttons is pressed on the mouse. For example, if you are pressing the right and left at the same time you can get the program to load DOpus. The documents are only in German at the moment, but the program is so easy to use, you shouldn't have many problems. If you have a problem contact the German Embassy in London, we're sure they be glad to help if you tell them you are an **AUI** reader. Auf Weidersehen...

Stickit2

Stickit is an electronic "post it" note. The only thing you can't do is leave irritating reminders on other people's computers, unless you install the program that is. And then you can annoy anyone you like.



Quantum exclusively offer

'VIDI Amiga' Capture Solutions by **rombo**



These Video Capture solutions offer superb performance and exceptional value for money.

Whether casual or professional interest in graphics from Video - you *must* have a 'VIDI Amiga'



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Supporting Amiga resolutions up to 704x566 in full overscan and all AGA & A1200/A4000 modes.

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Compatible with : A500 - A600 - A1200 - A1500 - A2000 - A3000 - A4000 - Workbench 1.3/2.0/3.0

- Composite & SVHS inputs!
- All colour modes inc. HAM & 256 col!
- Time Lapse remote image grabbing!
- Swipe & Play Animation Workstation!
- Cut & Paste between frames!
- 15 Image Processing effects!

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Real Time colour capture from any video source. It has even more features than Vidi Amiga 12 and the added benefit of image capture from moving video.

Full AGA chipset support as standard.

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Compatible with : A500 - A600 - A1200 - A1500 - A2000 - A3000 - A4000 - Workbench 2.0/3.0

- Real Time Image Capture!
- Composite & SVHS inputs!
- Time Lapse remote image grabbing!
- Swipe & Play Animation Workstation!
- File support for BMP, TIFF & PCX!
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Professional or serious user. True colour real time image capture from any video source.

Photorealistic image capture with 24 bit file option to bridge Amiga and PC.

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- Composite & SVHS inputs!
- 16.7 million colour grabbing!
- Swipe & Play Animation Workstation!
- ILBM, ANIM, BMP, TIFF & PCX!
- Image Processing controls & effects!

Quantum

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N.B. Prices include VAT. All Products made in UK. Trade enquiries Welcome.

Tel: **01506-461917**



DISK INFORMATION

Additional Information

Floppy Users

You can install to any disk except this month's SuperDisks. When prompted, insert your spare disk into df0:, the internal drive. The time taken to install a disk varies.

Hard Drive Users

Now you can install directly to your hard drive. Boot SuperDisk No.69 as you do for floppy installation, and select the disk you wish to install. When asked whether you wish to install to floppy or hard drive, select 'h'. You will be given a list of available devices and the space on them. Bear in mind that over 4 and a half Megs of space are required to install the whole set of disks.

The SuperDisks will install an exact copy of the floppy disk, AUI NOV95x, to a subdirectory of that name. This includes startup-sequences et al. Delete any unnecessary files. Note also that the icon information default tool in the documents will need changing or the reader 'least' will need copying from the c directory in the subdirectory to the c directory on the partition you have installed to (not necessarily sys:c directory).

You cannot install to any path that contains the following letter sequence: "df", "pc", "ds", "ram", "cd". This is to avoid any confusion with other Amiga devices. It is not a good idea to have partitions/directories called this anyway.

Expert Users

The installation directly to hard drive should mean that manual installation would take you longer now. It therefore seems little point detailing this. Should you wish to, remember that SuperDisk No.68 is a disk spare disk and requires this device to read them and that the commands are stored in superdisk69:c/commands.lzx.

Viruses

During the production of our coverdisks the disks were constantly checked for quality. While disks are checked for viruses, it is always safer to virus check the disk prior to installation.

Shutters

Prior to installation you should check the shutter of the disk to ensure that it has not been damaged in transit. This is best done by gently sliding the shutter to the left and allowing it to spring back. Please note that AUI nor Publisher cannot be deemed liable for any problems arising from use of the disk.

Disk Return

In the unlikely event your disk is damaged or simply doesn't run, please return it to the duplicator, Tib PLC, Tib House, 11 Edward Street, Bradford, BD4 7BH, (who may be contacted on 01274 736990) together with a stamped addressed envelope. Where it is a duplication fault, the postage will be returned along with the replacement disk.

Technical Support

Ring our duplicator's technical support line on 0891 715929 (weekdays 10.00am - 12.30pm, 1.30pm - 4.40pm). They may be able to offer useful advice. Calls are charged at 39p per minute cheap rate and 49p at all other times. Please ensure you have the permission of the phone owner before making the call.

A Plea

We have gone to every effort to make the SuperDisk easy to use and to ensure that all the programs work on as many systems as possible.

We regret that we cannot take any telephone calls concerning SuperDisk problems. They are just too time consuming and then we wouldn't have time to put the next SuperDisk together for you.

If you do have a problem, try the docs again and refer to your manual, should you need to move any libraries or assign any programs. If you are truly stuck, please write to Amiga Answers.

BBSs

Much Gratitude to Jimbob, the supportive Sysop of the excellent Waltons' Mountain BBS, on 0181 891 5730. Faulty Towers shouldn't be omitted, available on 01235 535113. If you want to be truly international, then check out the splendid American BBS Smorgasboard, on 205 745 3989.

Readers' Contributions

AUI's SuperDisks are crammed with the cream of Amiga crop. Many of the programs are created especially for us and released into the Public Domain through AUI. It's you the reader that makes it possible for AUI to continue to share top quality software with tens of thousands of avid Amiga users.

If you have a masterpiece that you think can cut it with the best, send it to: SuperDisk Contributions, Amiga User International Magazine, Unit 2, Utopia Village, 7 Chalcot Road, London NW1 8LX. Alternatively, you can send your programs uuencoded by email to amigauser@cix.compulink.co.uk.

It's best for us if you don't use Powerpacker, because we use LZX to archive, which is far more efficient. It will also help if you tell us which libraries or fonts your program requires, keeping them to a minimum if possible. So, if you're sending an AMOS program for example, try to avoid the need to have the AMOS library separately. These guidelines make life jolly for everyone.

Happy compiling!

Shareware

Just a brief reminder that some of the programs on our Coverdisk are Shareware. This means that you can try them out, but if you regularly use them you should send a registration fee to the author. Registration fees are between £5 and £20 and sometimes the author will send you the latest version in return. You can send an International Money Order, or preferably a cheque but many authors don't accept cheques if they are outside the UK. If you want to risk sending cash in a registered post, it's up to you. We wouldn't advise it but it's your money...

Note that some of the authors don't want anything more than a postcard from you so they can see how far their programs have travelled. So, why not make their day. After all, they made yours.

Compatibility

These SuperDisks are WorkBench 2 and above only and require one Meg of Chip RAM or more. We deem this to be the minimum spec Amiga used nowadays. That doesn't mean that we aren't aware of users with 1.3 Amigas. The reason is simply that most new programs, certainly those developed by PD programmers, require WorkBench 2 and because it allows us to give about a further 300-400K of data. Getting over four Megs onto two disks isn't possible with OFS disks and decrunching them would require more floppy disks on your part. WorkBench 2 gives much more than a new WorkBench disk, it powers up your Amiga, radically renovating your Operating System. The only option for 1.3 users is to upgrade. The cost is negligible (c.£50), and is more than worth it for the wealth of new programs on offer and for the money you'll save on floppy disks!

All the programs on these disks work on an A1200 and most on an Amiga 500+. The best way to check is to read the docs and try the game. Should you require additional libraries for the program, they should be enclosed in the program directory and you need to copy them to your libs:directory on your WorkBench disk.

Read your WorkBench manual for instructions on doing this.

Should it all go horribly wrong, please WRITE to Amiga Answers at the address shown in the Answers section. DO NOT RING! We cannot answer queries over the 'phone. Sorry.

Documentation

All the plain documents can be read simply by double clicking on their icons. The text will scroll, use the mouse to control it and press Escape to quit. If the docs are in AmigaGuide format, you'll need a computer that can read AmigaGuide files in order to read them without all the nodes showing.

The docs can also be loaded into any Word Processor that reads ASCII, which is just about all of them.

It's Back...

Like a phoenix rising from the ashes, the Amiga emerges - reborn under the Escom banner. HiSoft has been there all along, crafting the best products for the best home computer and we have many more exciting titles waiting in the wings... trust HiSoft for brilliant packages, keen prices and excellent service.



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A brand-new SCSI peripheral, the Zip™ may well revolutionise the storage industry.

This newest, most portable exchangeable hard disk drive weighs in at just 1lb, has fast transfer and access times (up to 1Mb/s transfer, 28ms seek), easily fits in your hand, your bag or your briefcase, stores up to 100Mb on floppy-sized disks, is perfect for all types of application and is priced at a level that will make you want to unzip your wallet immediately!

Price inc 100Mb cartridge, extra 100Mb cartridges £15.95 or less!

Order your Zip drive now to avoid disappointment!

Amiga Zip Tools exclusively from HiSoft

Zip drives from HiSoft include everything you need to get going on a SCSI-aware Amiga: the Zip 100 drive, a 100Mb cartridge, all necessary leads and a complete set of software, programmed by HiSoft, including:

- Easy access drivers
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The Best-Value Hard Drives

If you want a SCSI hard drive then HiSoft has the one to suit your needs; whether you are looking for an internal drive for your tower case, A3000/A4000 etc or an external 1Gb beast-of-a-drive for any SCSI-aware Amiga, we can supply.

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420Mb internal	£179	850Mb internal	£269
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We offer internal or external SCSI hard drives and CD-ROM drives. Internal devices are suitable for mounting in the A1500, A2000, A3000 and A4000 and come with necessary leads & screws whilst the external drives we supplied in our professional Squirrel cases (available separately) which include integral PSU. All SCSI connections and connection leads of your choice (at a small extra cost).

Super-Value CD-ROM Pack

HiSoft has done it again with a brilliant multimedia pack of Squirrel SCSI interface, Aiwa ACD-300 CD-ROM and the Almathera 10-on-10 pack of CDs! Just look at what you get:

- The amazing, trend-setting Squirrel SCSI interface which allows up to 7 peripherals (hard drive, CD-ROM, Zip, scanner etc.) to be daisy-chained together.
- The Almathera 10-on-10 pack of CDs; this is 10 CDs including the Team Yankee game, 2000 clip-art images, the Illustrated Works of Shakespeare, a Comics, Internet & Networking CD, The World Vista Atlas, 1000s of fonts, a complete photo library and much, much more!

Last chance to buy the Super-Value CD-ROM pack - offer ends 31 October 1995



Disk Magic

£39.95

Newly released, Disk Magic (screenshot on the left), is the ultimate file and disk management utility for your Amiga. DiskMAGIC makes every task you perform - from the copying of a file, to the extraction of an archived file, as simple as a clicking on a button! In fact, after using DiskMAGIC, you'll wonder how you ever used you Amiga without it!

DiskMAGIC is exceptionally configurable, with the ability to alter window layout, file types, action buttons, fonts, screen mode, archive handling, viewers and more.

DiskMAGIC is compatible with all Amigas running WB2 (or higher) and with 1.5MB or more of free memory.

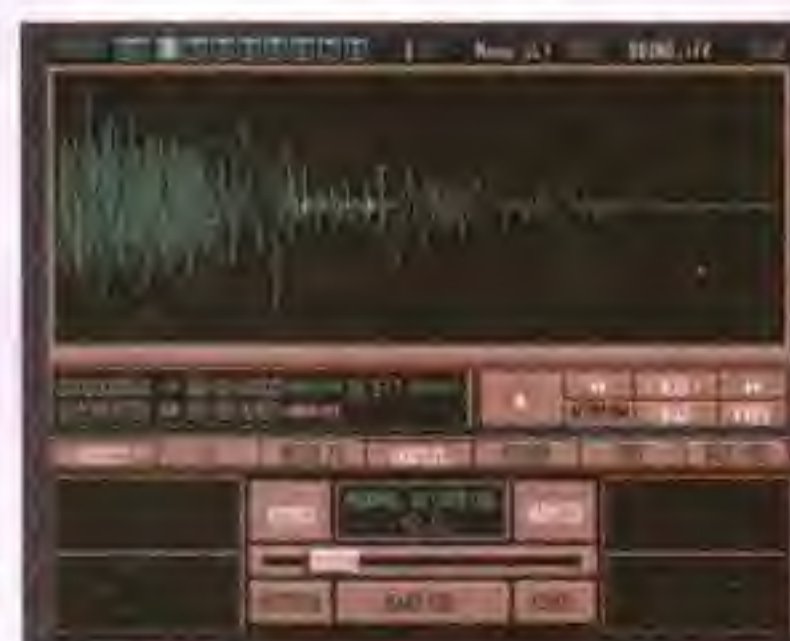


Twist 2 Database

£99.95

Twist 2 is the highly-acclaimed relational database for all WB2 Amigas (2Mb memory recommended). With built-in Forms Designer, a beautiful user interface, simple-to-use relations, versatile sorting, reporting and searching features and speed that defies belief, Twist 2 is the only Amiga database that will grow with you.

Twist 2 is compatible with all Amiga running WB2 (or higher) and with 2MB, or more, of free RAM. A hard disk is recommended.



As music experts (all sampler products are our own design, built and programmed in the UK), you can trust HiSoft to deliver the right package for you; a professional Midi interface (ProMidi £24.95), a great-value, 8-bit direct-to-disk sampler (Megalosound £24.95) or a superb quality 12/16-bit stereo, direct-to-disk PCMCIA unit (Aura), both samplers have superb real-time effects.

£99.95



Termite

£39.95

Afraid of becoming a hedgehog on the Information Super Highway? Don't worry! Termite is so easy to use that even a first time telecommunicator will feel at home.

Termite is 100% WB2 Style Guide compliant and provides you with all of the modern user interface features to really enjoy playing in the highway!

Termite supports both the Amiga XPR and XEM libraries as well as having its own internal ZModem. Termite is compatible with all Amigas running WB2 (or higher) with 1MB or more of free memory and all modems.



Cinema4D

£199.95

An exciting new package, due for release in September at the amazingly-low price of only £199.95, Cinema4D is set to revolutionise the 3D-rendering and animation market.

Cinema4D provides an easy-to-use multi-tasking editor; replete with every conceivable option including multi-window editing, interactive modelling, direct modelling in 3D, basic and complex primitives, easy object manipulation, hierarchies, an optimised FPU/CPU version and much more!

Cinema4D also includes a comprehensive file conversion utility to allow full import of your current objects.

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Stylish Or What?

Compiled and edited by
Anthony Mael and Martin Witton

Inspired by the Amiga



When film director, Chaim Bianco, set out to make his first movie, he was equipped only with a small amount of capital and his trusty Amiga computer. The result was an award winning film, *The Pope of Utah*, which went on to inspire others and has since pioneered the use of Amigas in lower budgeted film making.

Set in the power mad universe of the near future, *The Pope of Utah* is said to be a darkly satirical comedy about the not so holy excesses of TV evangelism.

In what they claim is 'an exceptionally slick piece of film-making for the 21st century', the film is mainly set in a TV station where programming and transmission are computerised and the images and sound are digitally manipulated by the devious station censor.

The film was produced entirely on location in Philadelphia on a tight budget. Using a radical mix of film and video techniques along with superb computer graphics, Bianco claims he managed to create some very sophisticated and futuristic effects. Critics at the Chicago Film Festival obviously thought so, as they awarded *The Pope of Utah* "The Best Feature Award".

You can judge for yourself, as the film has now been released on the new Screen Edge video label, price £12.99 or it can be rented from High Street video shops.

Contact: Screen Edge, 28/30 The Square, St. Annes on the Sea, FY8 1RF.
Tel: 01253 712453.

Migraph relaunched

Has your Amiga read any good books lately? Golden Image is relaunching the Migraph Multi-Pass OCR (price £49.95) which, together with a scanner will turn scanned IMG and TIFF documents into editable ASCII text files ready for export into most word processing and DTP programs.

Migraph OCR uses Omnifont technology to recognise a wide range of typefaces and point sizes. Special characters such as Greek characters and maths symbols can be absorbed and saved for automatic recognition. The Lexicons (linguistic database) enables the OCR software to make decisions of its own regarding questionable characters resulting in fewer errors, quick processing and less time spent on training according to the

company. Multipage documents can be processed with common typesets and point sizes.

The Multi-Pass version (V.1.52) OCR is for hand scanner owners. The user can make up to three consecutive scans with all the scans appearing on one 'page'. They then put a clip box around each text area and process. This way there is only one processing time instead of three.

The system requirements for any Amiga are 4Mb RAM and a hard disk. There is also a standard version available price £35.00 and system upgrades for current users of Migraph OCR.

Contact: Golden Image, Unit 65
Hallmark Trading Estate,
Fourth Way, Wembley, HA9 0LB.
Tel: 0181 900 9291.

What's on where

For those of you who have the time, the Consumer Electronics Show is always worth a visit. Here's list of forthcoming events. Martin Witton is happy to accompany anyone paying the fare, claiming to speak the language used in the USA. (probably not true...)

1996 International Winter Consumer Electronics Show

January 5-8, 1996

Las Vegas Convention Center & Pavillions

Las Vegas Hilton

Sahara Hotel, The Mirage, Las Vegas, Nevada, USA.

CES Orlando'96 - The Digital Destination

May 23-25, 1996

Orange County Convention Center, Orlando, Florida, USA.

CES Habitech '96

May 23-25, 1996

Orange County Convention Center, Orlando, Florida, USA

CES Speciality Audio & Home Theater

May 23-25, 1996

Orange County Convention Center, Orlando, Florida, USA.

Contact: The Electronic Industries Association's Consumer Electronics Group (EIA/CEG), 1101 14th Street, N.W., Suite 900, Washington, D.C., 20005 5601. Tel: 202 371 0700.

Win a Million Dollars

Software publisher, Sirius Publishing Inc., known for its 5ft10ins. of CD-ROMs, has set up a new division and initial CD-ROM title which offers users the chance to win a million-dollar cash prize.

The new division, called Sirius Entertainment, will sell 'Treasure Quest' as its first CD-ROM project and 'will offer consumers an entirely new experience in interactive multimedia entertainment', according to CEO Richard Grant.

The prize of \$1 million will go to the first player who successfully solves the clues and unravels the mystery behind 'Treasure Quest'

Contact: Sirius Publishing
Tel: 001 602 951 3288.

Applications are voracious little creatures. Satisfy them with the EZ-135.

MORE MEGABYTES! MORE SPEED! MORE SECURITY! THE EZ-135 IS HERE!

Forget about deleting storage-hungry applications or juggling drive space, with the new EZ-135 Drive from SyQuest, you'll have all the storage you could ever need. Each removable cartridge holds **135 megabytes** of information – that's about 100 times more than the average floppy. So transporting large files is a snap. And unlike other removable cartridge systems, the SyQuest EZ-135 Drive offers true hard drive performance – the same level of performance that

made SyQuest the world leader and choice of professionals. But perhaps best of all, the **EZ-135 Drive costs less per megabyte than any other comparable system**, making it the best value around. So treat yourself to a system you can grow into, rather than out of. Get the EZ-135 Drive today! For more information, visit your local dealer. Or call us at

 **0 9 9 0 - 1 1 - 5 5 - 6 5**



EZ Drive

A removable hard disk in a 3.5" cartridge.



SyQuest®

*135 MBs PER
CARTRIDGE

*13.5 msec
ACCESS TIME

*2 YEAR
WARRANTY

*DRIVE VERSIONS:
Internal IDE/ATA
External SCSI II
Enhanced Parallelport

Virtual Karting

Gradually the games people are reviving the once huge Amiga games market. A previously to us unknown group called OTM has told **AUI** that they are about to launch Virtual Karting which, if it lives up to the reports is going to be something of a sensation.

Virtual Karting has been programmed in HLA - High Level Assembly. This is, by all accounts, an extremely powerful and flexible programming language which has never been commercially released. Apparently Virtual Karting would not be faster even had it been written in 100% pure Assembly.

Martin Lown of OTM told **AUI** "There is a reason why I love fast games - at least 25 frames per second: the playability. I don't like games that look pretty but are slow. The action is the most important thing in a driving game, so I gave priority to this aspect. Virtual Karting has great detail too but the speed of the game is something amazing. It means real action and playability."

Virtual Karting has not only three tracks and two karts to study and drive but also four different heights of view in 3D mode and a 2D game as well.

The background isn't scrolled, Martin Lown pointed out, as in almost every game for the Amiga and PC, it is texture mapped, so looking like the effect given by a video camera.

Virtual Karting is programmed to run at 25fps on an unexpanded 1200 but can reach 50fps if there is a small accelerator using fast RAM aboard.

It must be encouraging to Amiga Technologies to find that there are still games developers making technical advances on the Amiga like those that it seems Virtual Karting incorporates. We wait with considerable anticipation for the final version to reach us and to see if it lives up to the claims for it.

Price Wars

Amiga Technologies must be watching with interest as competition heats up in the home market for computers - sorry, games machines, but of course, computers too. With the price for the Amiga 1200 set disturbingly high at £399, it could be worrying for Amiga Technologies to find that Goldstar has reduced the price of its 3DO player to £299.00 from £349.00.

The announcement came shortly after Goldstar's rivals, Panasonic also dropped the price of their 3DO, from £399.00 to £299. However, the Goldstar GPA101M (don't you just love those trippy little titles ... "Could I have a GPA hundred and one M three dee oh please"!) had only been released for six months before the new price was announced.

Keiron Sumner, ex-Commodore multimedia top honcho who has now switched to Goldstar and their 3DO, brushed off any suggestion that the

decrease was caused by lack of public interest saying "Our commitment to the development of 3DO as the premier gaming platform means that we want the system to be used by as many existing and potential gamers as possible. With the new, lower price we are aiming to draw in a bigger and more broadly based audience".

Goldstar is also to repackage its 3DO player and offer new software bundles as part of a stores based marketing push. Keiron Sumner, told **AUI** "We won't have a new product name but we are looking at different pack names, depending on what software is bundled with the player. It's an idea which worked well for the Amiga. Now we publish our own software, it puts us in a good position to offer different bundles". The Goldstar 3DO is currently bundled with EA's FIFA Soccer International.

Sounds like a move, the cutting of a price down to £299, with which Kieron Sumner must have been familiar from his experience with the Amiga, which was selling at that price before Commodore bit the dust. No doubt his ex-colleagues at Amiga Technologies wish they could do the same and repeat their own past price cutting. But Escom pays the piper and calls the Amiga tune.

Optonica Cuts the Costs

Optonica have reduced the price of Insight:Technology to £19.95 for all Amiga CD systems, to bring Insight Technology in line with Insight: Dinosaurs. Insight Technology explores hundreds of subjects from the ball point pen to the space shuttle, explaining how things work using animation, video, voice overs, pictures, sound effects and text.

Simpatica 2 + VTL has been reduced from £350.00 to £199.95. The renowned package allows the rendering of 24-bit and Amiga graphics to video tape. Using the supplied hardware to control professional video decks, full 25 frames per second playback is now available. For all Amigas with 2Mb RAM minimum.

Info Nexus has been upgraded with the release of InfoNexus 2. Price £29.95 for all Amigas with 1 Meg plus. This file management system now includes functions such as drag and drop file copying, iconic representation of files and visual image catalogue as well as including the previously separate product DataNexus.

Datanexus is a fully featured flat file database with built in multimedia support for images, samples, music files and CDXL video.

Contact: Optonica,
Tel: 01455 558282.

Money for old printer cartridges

Users of inkjet printers are being urged to help protect the environment and make money at the same time by recycling their printer cartridges.

The appeal has been made by printer consumables firm AFIC, who are concerned that firms throw away used cartridges causing pollution.

The company has developed what they claim to be a revolutionary new process for large-scale recycling of inkjet printer cartridges, but it cannot get hold of enough used cartridges! Hence the offer of an exchange system of a new for old cartridges. If that isn't tempting enough, the company will buy the empties or give gift vouchers.

AFIC, which has set up a dedicated factory to undertake the work, claims to be the first UK company to offer large-scale refilling of inkjet printer cartridges. The recycled cartridges are then sold as a competitively-priced high quality alternative to new cartridges.

Contact: Applied Film Industries Company, 28 Ashburton Grove, London N7 7AA. Tel: Freephone 0500 700469.

Quotes of the Month

"Whereas the dominant industries of the 19th and 20th centuries depended on materials and industry, science and technology, the industries of the 21st century will depend increasingly on the generation of knowledge through creativity matched with systems of rigorous control".

From 'The Creative City' by Charles Landry & Franco Bianchini.

"Rigorous control"? We don't think the authors really mean how that sounds. Otherwise they would appear to be advocating a totalitarian system. If the controlling systems are computing ones and then they are right, as has been realised for some years, knowledge based systems are the way to nurture growth in the developed countries which are, as the UK, rich in creativity. All we need is a government and a society that understands that they can't live in the past where dirty, heavy industry depended on cheap and largely low skilled labour. The future should be, like Amiga users, clean and beautifully knowledgable, don't you agree?

Key Price?

Microsoft has come up with four key price points for consumer products, following six months' costly market research and price trials in selected stores.

£19.99, £29.99, £39.99 and £49.99 are the favoured prices, although Microsoft see £29.99 as the big one. £29.99? Well, now who would have thought that out without expensive research?

Putting their money where their mouth has been dribbling, the Bill Gates Mob has started with a price reduction for CD software products Wine Guide and Dinosaurs to £29.99 from £39.00 and £44.00 respectively.

Paul Tollett, Microsoft UK consumer business manager said "Our calculations show we will achieve significantly higher volumes at these prices." Now you have to be a really farseeing company with lots of cash to calculate that, don't you think?

By the way, Optonica's Dinosaurs has just come down to £19.99. We'd better ask them if they spent millions on research before making that cut in price.

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brilliant graphics.
But you should
see it when it's
switched on.



SyncMaster	15GLi	15GLi	17GLi	17GLi
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MBPR-II (Low Radiation)	*	*	*	*
TCD 82		*	*	*
Plug and Play	*	*	*	*
Power Management	*	*	*	*
Dynamic Focus		*	*	*
On-Screen Programming		*	*	*

After you've admired the new Samsung SyncMaster GLi series' finer features, switch it on and admire some more. It has DDC Plug and Play so you can use it the moment you plug it in, Dynamic Focus System for high resolution graphics and an EPA energy star PowerSave system for cheaper running costs. There are four monitors in the range, high and low end in both 15" and 17" screens, each one being compatible with both PC and Macintosh hardware. And because you'll spend hours staring at it there's a unique screen coating to prevent eye fatigue. The Samsung SyncMaster GLi series. It's as sophisticated on the inside as it is on the outside. For more information call Freephone 0800 454 352.

SAMSUNG

ELECTRONICS



Tandy Kicks The Console Habit

Another sign of the fall of the consoles and the rise of the PC is that Tandy, who have more than 200 shops in the UK and thousands in the USA, is pulling out of the console software market and ploughing its efforts into multimedia PCs instead. Richard Hogarth, merchandising director at Tandy, told **AUI** that "There is far too much instability in the games market and the margins are not good enough any more. Tandy is moving out of software in a serious way".

But Tandy is also concerned about Escom's charge into the High Street where Tandy's stores have always had a strong presence. Tandy is considering selling unbadged PCs in response to Escom's cut price strategy.

Rumbelow's always looked poor competition for the more technically-oriented Tandy shops, and Tandy appeared to have better trained and more knowledgeable staff too. But Escom, with their concentration just on PCs, are altogether a different proposition and Tandy must already be feeling the fight is getting more vicious. Carrying on the ever less popular console line of business must have seemed a dead end out of which they have been wise to escape.

Tandy used to sell Amigas. Will they do it again if the Amiga gets into the Escom shops?

IBM Goes Soft

IBM is to set up a consumer software operation in the UK, with the emphasis on driving down prices to achieve mass market sales. (£29.99? £19.99? Even £9.99? IBM, you need some research!)

The new operation will bring out more than 20 CD-ROM titles, some home grown and some licenced from other developers, from its Multimedia Studio. The first title will be Hyperman, an animated children's science edutainment title bundled with IBM's new Aptiva PCs.

Four more titles are planned up to Christmas, including Kid Riffs, a music program, we suppose. The titles are currently for the PC but, believe it or not, also coming out for the Mac too. Now isn't that interesting IBM producing for the MAC? Even more interesting, IBM is looking at Sony's Playstation and Sega's Saturn to see if they sell sufficient numbers to justify porting the titles.

Years ago, IBM so dominated the hardware market they seemed invincible. Now, Microsoft appear to have the same dominance in software. Could we see the once-great hardware company IBM return to fight it out on the software scene?



IBM goes hyper in search of the home market.

CD Consoles to Slump

Market research company, Datamonitor are warning CD-console developers, that's 3DO, Sony, Sega etc., to change their software strategies if they are to avoid a slump in sales. According to their latest report, sales will peak in 1998 at just under 9.5 million, but by then the growth rate in installed base will have dropped to a meagre 7% from a high of 87% this year.

Datamonitor predict that the likes of Sony, Sega and 3DO will not appeal to 25 year olds unless the software changes to meet the tastes of that age group and what it demands.

The main competition to the CD consoles is expected to come from the more powerful PCs and the growth of on-line interactive entertainment services.

Yes, it seems from research like this, there is a time when computer games playing fanatics grow up. It will happen, believe it or not, even to those of the Sega/Nintendo generation.

Perhaps one sign of this decline, especially in the cartridge market, is that Nintendo has decided to slash its cost and close down its current UK HQ, with the loss of over 140 jobs.

The Nintendo UK subsidiary is being replaced by a new exclusive distribution partner THE, and a small management office in London. Offices and warehouse facilities in Fareham and Eastleigh will be closed too. Currently Nintendo UK employs around 160. The new London office is likely to employ less than a dozen people. Oh, how the (games) mighty are fallen...

Amiga Flight of the Amazon Queen

Welcome news for Amiga Technologies as they struggle to get the Amiga back into the spotlight. The helpful Deidre Murphy of Warner Interactive, part of entertainment giant, Time Warner, has told **AUI** about the upcoming release of a graphic adventure "Flight of the Amazon Queen" on the Amiga.

Flight of the Amazon Queen has been created by Interactive Binary Illusions - don't you just fall amazed by the names they give themselves in the games world? - and released under the auspices of famed developers Renegade.

With over 100 different locations and 40 characters, Deidre "I just love being hot and sticky in the jungle" Murphy insists that Flight of the Amazon Queen does not refer to her own exciting personal life but points out that it creates "a new dimension in software entertainment". But then probably so does she when, in her dugout canoe, she glides downriver in black lace. But that is another adventure story..

Set in 1949, 'Flight' is a humorous graphic adventure, surprise, surprise, enacted in the Amazon jungle and is said to be an irreverent pastiche of the adventure serials that were popular in the 1940's - a time which, of course, you, but not we, remember well.

Following the adventures of pilot for hire Joe King - Joking, geddit? - it makes use of a panoramic map screen which displays the entire Amazon valley across a smoothly scrolling double width screen. The story progresses through the use of full screen cutaway sequences.

Joe encounters a number of "interesting" people including "overzealous missionaries", who no doubt explain their energetic position to him and a race of Amazon women and their beautiful princess who, it is rumoured, is named Deidre. They also meet up, as one does, with a pygmy tribe who are, we kid you not, 6 feet tall. Unusual pygmies about these days...

Flight of the Amazon Queen is, you'll be glad to know, hard drive installable. Well done, Warner, Renegade, Interactive Binary Illusions, the 6 foot pygmy tribe and, especially, Princess Deidre for supporting the Amiga with games that sound as if they might very well be worth playing. Our favourite computer can use as many as it can get.

Home rules OK!

Latest research from Apple has shown that a multimedia computer is the number one hi-tech consumer item that the public in the UK aspires to owning, above video cameras, 3D TVs and mobile phones.

In addition, respondents believed that the computer would be far and away the most important item in the home by 2005.

Yes, but will these electronic marvels do the washing up by then? We have heard that the new RISC-based Amiga should support Bold Automatic. We are not so sure about the other advantages it will have though.

CD It Yourself

Sony is trying to create a mass market for recordable CD-ROM with the launch of two low, or rather lower, cost CD-Recordable drives. According to the company, these will make it easier and cheaper for users to record their own CDs.

Sales of CD-recordable drives are taking off, say Sony, and the two drives are intended for the consumer end of the market. But Sony expect they will also appeal to companies and public sector organisations for data archiving and hardware back up, and for developing training disks, CD-ROM publishing and database applications. Not only an individual's data but also shared code and networked databases can be stored by CD-recordable drives. But, of course, they will not be used for pirating software. Of course not! Who could think of such a thing?

True Quad?

Although other companies have introduced quad speed and even six speed CD-ROM drives, in most cases they have achieved this merely by increasing the rate at which the disc revolves by using a more powerful motor. At least, that's what Sony are saying..

Although increasing the disc revolution speed allows higher data transfer rates from the CD to the central processing unit, Sony say it can disrupt the computer's CPU by dumping over too much information at once.

So Sony, ever willing to solve the technical problems of our world - yes, of course we did need another computer without a keyboard called, to emphasise

the seriousness with which computing should be taken, the Playstation - have done the right thing and come up with some new CD-ROM drives.

The new Sony drives aim to avoid the too much data problem by having their own built-in intelligence to take over tasks traditionally handled by the host CPU.

Two models are the CDU-76S-RP (£169.00) which is a SCSI-2 version and the CDU-76E-RP (£139.00), an ATAPI (AT-Attachment Packet Interface) version. The drives come with audio cable, software driver disk and manual, but will require an additional SCSI adaptor card and software.

Are you game?

We heard that Yorkshire TV were looking for "a young and funky female" (who isn't?) to present a new game show. The show is currently under development, but they said that "the successful candidate could be set for stardom.

So we went around chatting up any girls we could find who fitted the Bill. Sorry, the game show.

"We can make you a TV star on Yorkshire." We told them. "Let's go to my place and talk about it." It's surprising how many really funky girls don't think much of Yorkshire TV.

We even thought of getting into drag and applying for the job ourselves. But Mark Blackham had pinched all the sexy bras and panties for his trip to New Zealand. However, now those spoil sports at Yorkshire have said they've found their "funky female". Shame.

Details of the programme are yet to be announced, but it seems that there are now likely to be at least four regular TV computer game oriented shows like GamesMaster - sans Patrick Moore - Bad Influence etc. appearing on the little screen as the year ends.

The trouble with these shows is that they appear to be more like Saturday morning kids' TV shows, or even Listen with Mother afflicted with frenzy, radio transferred the pictures, than about computing or even consumer technology. Maybe the key is in the word "funky". The idea is screw the technology, let's go for the lowest common denominator of square eyed mindlessness. Computers? Forget them. Let's make it real gamesy and funky, funky, funky. Get a life, computer user!

Apple takes on Windows

Apple, who have had a good run in commanding premium prices for their Macintosh computers have had to rethink strategy since the launch of Windows '95.

Apple has brought its prices into line with those of competitors although the company claims that its new Power Macintosh computers are faster than PCs running Macintosh Windows. The new models, aimed at business users and home offices, range in price from £1200 to £3500, depending on the speed of the processor, disk and memory size and other features. The low-end Power Macintosh 7200/75 and 7200/90 are being priced to compete with comparable machines from Compaq, the PC market leader. Higher performance Power Mac models remain slightly more expensive than rival products.

So we may see price cuts to come.

Compaq cuts prices

Apple were not the only company revising their pricing strategy in preparation for Windows '95. Compaq launched an aggressive bid just days before the release of Windows, in an attempt to boost its share of the world PC market. Price cuts of 13 to 25 per cent were on offer on the desktop computers.

In the consumer sector, Compaq dropped its prices by about \$200 to \$250 - £140 to £170 on most models. The lowest cost Compaq Presario model, a 486-based multimedia PC is now priced under £1000 in the US. Prices on desktop computers aimed at the business market now start at \$1250 - £850.

This is the first time Compaq has reduced prices worldwide simultaneously. "We want to take advantage of increased market growth to extend our market share leadership", the company said. You bet they do!

Formats Go Ping

The new file format PNG (pronounced Ping), recently included on an **AUI** SuperDisk, has been endorsed by a coalition of major software developers. The development of PNG took place following the demand by Unisys and subsequently CompuServe that users would have to pay royalties on the formerly freely used GIF file format.

The PNG - Portable Network Graphics - format is flexible and open for storing bitmapped graphics images. PNG has been developed to provide a royalty free format to rival the patent on LZW compression algorithm, which is an integral part of the GIF file format.

A coalition of experienced independent graphics developers from the Internet and CompuServe formed a working group and designed the new PNG format. PNG's major advantage over GIF is that it is smaller than GIF files, but the features will allow conversion of all GIF files. PNG offers a new, more visually appealing method for progressive display than the scanline interlacing used by GIF. As you can see if you have the **AUI** SuperDisk which included it.

Protext Revives

You might remember that we recently reported that Arnor, the company that was best known for Protext, a longtime favourite W/P for the Amiga was no more. However, for you multitude of Protext users - and wannabe Protext users, Protext is now available from Compo Software Ltd, with upgrades along with the full versions.

Protext V6.6 will still be maintained and developed by the original authors. Hooray!

Protext, Compo told **AUI**, is also on the PC. Oh really?

Contact: Compo Software Ltd., Unit 3, Green Farm, Abbots Ripton, Huntingdon, PE17 2PF. Tel: 01487 773581.

DKB Boards for Amigas

DKB have gained a reputation for hardware adaptors which enable A1000 machines to use newer operating systems. They have now released 060 boards to work with Amiga 2000 machines. Yes, there are still A2000 users out there. But we can't imagine that too many of them will want to incorporate fast as lightning 060s. But we could be wrong..

Dean K Brown of DXB told **AUI** "Any accelerator will generally work best in the processor slot. RAM on the A2000 version will be 128 MBytes using industry standard 72 pin SIMMs at 60ns or faster."

No special modes such as static column or nibble mode are required. The A2000 version will also ship standard with SCSI-II Fast, and Ethernet.

"While there are no plans for any serial ports on the accelerator there is a very high speed expansion bus intended for high bandwidth expansions. Since the bandwidth is 100+ Mb/sec, any serial port would use somewhere around 1% or less of the available resources. This is not a very efficient use of the expansion bus's potential. What we would consider a good use of that bandwidth is a display card of some sort". DKB commented.

Yes, indeed. A2000 users take note.

New Amigas in Philadelphia?

Are they, aren't they? Somewhat akin to the sightings of the elusive woodpecker in Britain last August, various reports have come to **AUI** of the manufacturing of Amigas by Amiga Technologies GmbH, the Amiga subsidiary of Escom.

One such report has been seen in the USA in which it seems that Zober Industries were about to start making Amiga parts for the general manufacture of Amiga 4000 towers (which contain the main workings of the computers) in Philadelphia. However, the reported start up date has come and gone and there is still no sign of production commencing, our spies tell us.

Another rumour that Escom were about to restart making Amigas in China has been scotched, since the Chinese would apparently not be ready to begin manufacturing for at least a

year. But there are plans to produce 22,000 Amiga 4000 this year, using the Philadelphia based boards, and shipped to Scotland where the computers will be made by a contract manufacturer that used to assemble some machines for Commodore. Don't hold your breath! but we hear from Amiga Technologies themselves that Bordeaux in France is to be the site at which the 1200 is to be manufactured.

A global company Escom might be but is it necessary to make the manufacture such a widespread business? One of the troubles that Commodore had right at the beginning of the manufacture of the A2000 - see story above - was the rivalry between California and Germany. Now neither of those expert areas are involved. Some people seem to make it hard for themselves, don't they?

ICPUG Incentive

Can you resist a good bargain? ICPUG, the Independent Commodore Users Group, is offering a new membership incentive scheme with £1.00 off the 1996 subscription for each new member recruited by an

existing member. All you have to do is make sure the new applicant puts your name and number on the back of his/her application form. If you recruit enough new members, you could join for free next year!

Contact: Tim Arnot, 17 Colne Drive, Oakfields, Didcot, Oxon OX11 7RZ.

Manual for Envoy 2.0

Amiga Envoy is the standard Amiga peer-to-peer networking software developed by Commodore's Amiga Networking Group. Its performance, user interface and API are, as you might guess, compatible with the Amiga OS. Amiga Envoy provides a simple messaging interface for the easy development of reliable network applications. Included applications enable connected Amiga computers to share hard disks, CD ROMs and printers, transparently. Third Party applications can provide functionality such as electronic mail, remote computer access, multi-user databases and multi-player games.

To make Amiga Envoy available to end-users, Intangible Assets Manufacturing licensed Amiga Envoy from Commodore. IAM has now produced a manual written by Amiga Envoy's original designers. The manual takes you through the setup and use of a simple network.

Contact: Almathera, Southerton House, Boundary Business Court, 92-94 Church Road, Mitcham, Surrey CR4 3TD. Tel: 0181 687 0040.

As Seen On TV?



You watch this ad or else. . .

Summer isn't generally noted for high TV audiences, and most of us were too busy enjoying the freak heat to be glued to the Box. Understandably, then many people missed the spate of advertising for various technologically related products.

Escom, keen not to lose out on the selective summer audience chose July to start their TV campaign. Admittedly it was to give details of their summer sale, but was also to announce the opening of a further 39 outlets to add to the 127 stores it already has. Seven stores have been opened in OfficeWorld, making 11 sub stores in total.

That could have been a mistake for it's been reported that overall during the summer TV audiences watched three hours less TV than they generally. Escom - as seen on TV? Or possibly not.

Dates not to miss - maybe

November 8 - 11 Apple Expo '95
Olympia Grand Hall
Emap: 0171 388 2430

November 10 - 12 Computer '95
Cologne Exhibition Centre
Tel: 01724 798491
Norton & Co Event Management

November 21 - 23 Visual Communications '95
Olympia
Tel: 01926 451963. P&O Events

November 28 - 30 Computer Graphics '95
Wembley
Tel: 0181 995 3632

Digital Media International
December 5 - 7
Online Information
Olympia 2
Tel: 01865 730275
Learned Information.

NEW!

AMIGA 1200

The UK's favourite home computer is back! Amiga Technologies, a brand new UK company have launched the Amiga 1200 with a stunning array of software in the AMIGA MAGIC pack. And, to make a great pack even better, every Amiga 1200 Magic Pack from Silica (at the advertised price), comes with a FREE Chaos software pack - see below.

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SEE FEATURE ON PAGE 1

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Which computer(s), if any, do you own?

273A

3

06/08/95

NEC Rings Bell

NEC, Japan's leading PC manufacturer, is joining forces with US computer company, Packard Bell, in an attempt to provide a direct challenge to Compaq and IBM, the world leaders. NEC has bought a 19.99% stake in Packard Bell for £107.5m - some £120 million following Groupe Bull - the French company - who bought a similar stake in the privately owned US company two years ago.

The NEC deal is part of a strategic alliance with Packard Bell which the two companies said was expected to lead to co-operation in procurement, product development, technology and marketing in PCs, video game systems, TV set-top decoders and mobile devices.

Packard Bell - who have nothing to do with Hewlett Packard or US Telecommunications giant, Bell - have been extraordinarily successful in recent years with a highly-competitive price structure for PC clones. They made their entry into the UK computer scene through a deal with Dixons which took their machines into the High Street chains stores as the leading brand.

Packard Bell are estimated to be 4th or 5th largest PC company in the world now. Their link up with both NEC and Bull (Bell and Bull? Sounds like a kids TV show...) puts them into a much bigger league financially and may well turn out to be another significant move toward the PC market becoming dominated by a smaller number of bigger league players.

Yes and No to CD ROM

IT specialist research company, Banner & Co, have reported that only 22% of all computer decision makers have a CD ROM drive. Although CD ROM is used in large organisations of 50 plus employees, only 17% have them in the SoHo market.

This is apparently due to the slow replacement of hardware, although interestingly respondents to the survey cited that they thought that unless they are in designing or multimedia, there is no real benefit to using CD ROM.

The Banner report detailed a profile of the CD ROM user. This fits with the perception of specialist use, with desktop publishers, designers and multimedia developers making up 75% of users, primarily for graphics.

Some 19% of CD ROM users also use the Internet. Banner concludes that CD ROM consumers are more technology driven than non CD users. Well now, that's a surprising conclusion, don't you think?

Brilliance Has Soft Control

Philips has launched an upgraded version of its flagship monitor, the Brilliance 17A, to include a number of new benefits, which they say, make it easier to install and use.

The 17A includes an interactive software controller, Plug and Play compatibility, integrated stereo speakers and an enhanced dot pitch.

The upgraded 17A is the first Philips monitor to employ the company's newly developed software controller known as 'soft control'.

It is claimed to provide easy control of all display functions via three specific control screens with icons for each display function, as well as Glossary and Help. The screen's control image geography, image quality and monitor behaviour. 'Soft control' is mouse driven. The monitor requires the RGB video interface. Price £999, the 17A meets the required environmental standards for power management and emissions.

Contact: Philips Business Electronics, 8 Westminster Palace Gardens, Artillery Row, London SW1 1RL. Tel: 0181 689 4444.

Single Electron Logic

Scientists at Cambridge University are making progress with the concept of chips containing the data processing capacity of 1,000 personal computers. (Can you use 1000 computers at once? No? Start practicing!)

Called single electron logic, the principle behind the development is that small and precise numbers of electrons can be controlled to perform a range of information processing functions. It builds on the single electron memory developed by Cambridge scientists in 1993 when they announced that a single electron could store one bit of information.

Hitachi are funding the research, which they see as a commercial venture for the future when single electron devices will be made from silicon, the most widely used material for making semiconductors.

1000 computers? Most users have enough trouble using one! Ask Andy Eskelson.

Juggling Profit and Sales

Dixons, see the Packard Bell item, have had an extraordinary year with profits at the year end up by 37% to £100.3 million, but profits were affected by a sharp fall of sales in computer games and camcorders.

There was however, strong growth reported by both Dixons and Curry superstores, which they own, of 8% and 13% respectively.

Meanwhile Dixons has announced plans to adapt its stores to selling more PC hardware and software as they foresee educational software being the growth area, with more and more parents buying PCs for their offspring.

With both Tandy (see page 18) and Dixons dropping their games sales, could it be that games are on their way out or is it just another false dawn?

Safety videos

Carrying out risk assessments are part of the new EC regulations, but satisfying the authorities can be time consuming when it comes to producing new complex equipment. At present surveys are either carried out by building three-dimensional computerised models or simply drawn by hand with each part of the structure laboriously detailed.

Now CADCentre, a Cambridge based computer aided design company, has developed a photogrammetry technique, which builds up a picture of an installation using overlapping video images. The 3D co-ordinates of each piece of the equipment surveyed are calculated with the help of the 3D co-ordinates of each camera. This software is intended to speed up the surveys by converting the digital video images into 3D computer models.

Children's Computing

Children's Computing is a club which gives advice to children and their parents on computing projects for education and fun. Anyone can take part provided they have a computer. Projects include such diverse subjects as science, creative writing, art, maths and geography.

For example children can compile a survey looking at levels of traffic and pollution - a topical issue last summer,

creating graphs text and graphics.

The ideas are detailed in Children's computing magazine, available from newsagents or stores such as Tesco and Sainsburys. Membership of Children's Computing club costs £15.00 a year and includes a free quarterly newsletter, a fun membership pack and discounts on computer software.

Contact: Children's Computing on 01869 324324.

Inn On Line

Holiday Inns has launched a credit-card booking service on the Internet. The hotel company has opened a set of electronic pages on the world-wide web to allow users to search out information on hotels and to check availability.

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Conquering the Dizzy Heights

Doctors at the National Hospital for Neurology in London - the Editor's very own, he claims, as it used to be called the National Hospital for Nervous diseases and he says that's what he gets especially from his staff - have found a Sega flight coin op game to be a cure for some forms of dizziness. In the game, players are swung around and this is being used in the treatment of "benign positional vertigo" which apparently affects 25% of patients who suffer from dizziness.

"Benign positional vertigo"? Does that mean smiling smugly down from the sickening height of the position of Editor?

Plus Ça Change....

We thought that you might be interested by what happened in the not too distant past.

4 years ago at about this time Commodore was defending itself against an angry independent sector upset by the lack of price protection on a recent A600 price drop. A number of dealers had expressed annoyance at being left with stocks following a shock announcement of a £100.00 price cut on the machine. Commodore however, claimed that long term gain would far outweigh any short term gripes.

And 8 years ago - Commodore and Amiga distributor SDL found itself embroiled in a major row over a Silica Shop (SDL's mail order arm) special offer of £100.00 off the A500. Commodore was branded as "naïve" by both irate dealers and distributors for agreeing to the deal, although the company denied the charges, claiming that all distributors should have been informed and that few sales will be made by mail order anyway. Oh really? Amiga price problems? Now as then. . .

ADI's Drought Solution

Monitor company, ADI, who have up to now concentrated on high end screens have jumped onto the cheaper monitor bandwagon, seeing "a drought in the market." Their initiative has been driven, they say, by the realisation that there is money to be made from selling upgrades to consumers. Wow! Why didn't we think of that? The launch of their first consumer monitor - the Pro Vista 14, is priced at £199, which may well turn out to be a competitive price.

The monitor is 14" but ADI say that in six months to a year, consumers will be upgrading to 15" monitors (which, of course, they can supply).

Premier Stows Away



Premier Developments, longtime faithful to the Amiga are still staying loyal. Known for their desk-top workstations, Uni-centre and Combi-centre, they have been telling **AUI** about their latest innovation.

The Stow-A-Way desk top computer/keyboard/wrist-rest workstation has been designed for the A4000 al-

though it's also suitable for PCs. The Stow-A-Way is claimed to meet all the EC requirements for the operation of VDUs. Price £49.95.

Contact: Premier Developments, 4 Third Avenue, Warboys, Huntingdon, Cambs, PE17 2SR. Tel: 01487 823684.

Amiga Guide to Babylon

A certain Mr. Markwell has been telling **AUI** that although there are plenty of guides to Star Trek, Red Dwarf, X-Files etc. in public domain, there has been no guide to Babylon 5. He has addressed this long felt need by producing such a guide, with new issues to be released, he says, twelve times a year. Each one will cost £2.50.

The Guide to Babylon 5 will contain pictures, objects, video and book reviews, special features and profiles on all the characters.

The guide will be in AmigaGuide format so every issue can be merged into a complete guide. Each issue will cost £2.50, but a special introductory offer subscription for 12 months will cost £25.00 or £14.00 for six months.

And they dwelt in Babylon.. No, they didn't, they produced it on Amigas using LightWave. (Was that mentioned in the Bible?)

Contact: A. Markwell, 83 Canterbury Avenue, Hadrian Park, Wallsend, Tyne & Wear, NE28 9QQ.

Quotes of the Month

"Hard core coders are always going to be at the leading edge of product development simply because they are the ones who make the difference between the myriad of games out there".

Tony Fagelman, General Manager, London Studio, Virgin Interactive Entertainment.

Hard core coders.. No, they are not the creators of electronic porn. They are certainly the people behind the games that companies like Virgin bring out. But technological talent is by no means always combined with creatively in ideas - except within their very narrow speciality. It is rarely the technical brilliance that makes a game highly playable. And that applies too to the usability of any other software to. What differentiates between "the myriad of games out there" is the creativity more often not of the "hard core coder" but of the idea, the originality, which may not be technically-linked at all.

The most successful game in recent years? Lemmings No way was its success a "hard coding" affair. It was the result of a bright idea that was fun. Then came the coding. Sorry to disagree with a boss of the all-conquering Virgin but it's the creativity first and the technical ability second that we think makes for real difference.

Emotional Solution

Imagine a situation where you have hundreds of games that don't work on your Amiga A1200/ A4000. Do you actually know **anyone** who has hundreds of games that don't work? Come to think of it has **anyone** got hundreds of games that don't work? Well, if they have here's the good news. You'll be delighted to hear that there is a solution! Binary Emotions (Binary Emotions? Is this a joke, we hear you cry?) claim to be able to fix 95% of all games and utilities to work "so you can relive those happy times once again".

You can find out how to get yours fixed by calling Andrew Jolly on 01722 416074 to make the arrangements, then sending your software by recorded delivery with £2.99 per a software fix plus 30p per a disk over two, to Binary Emotions, 11 Macklin Road, Salisbury, Wiltshire SP2 7HB.

A Little Late?

Inspira have been telling **AUI** about their new club for Amiga users. Members receive a bi-monthly club magazine, plus newsletters and discounts off commercial software. Discounts now include £10.00 off SoftWood Products Final Writer, £5.00 off Final copy 2, as well as a 10% discount off CD ROM titles from Active Software and Saddletramps PD.

A technical helpdesk is available where members can phone or send in for help on Amiga related problems and there is also a PD exchange where members can swap PD software with titles in Inspira's library.

Members are put in touch with other members to swap ideas, help and team up on software projects. Membership for one year costs £10.00.

As a special offer to **AUI** readers, the first fifty people who mention **AUI** when they join will receive two free public domain disks.

It does seem a little late in its career to start an Amiga club but the offer certainly seems worth looking into.

Contact: Inspira Software Club, 44 Sandy Hill Road, Woolwich, London SE18 7AZ. Tel: 0181 316 6145.

Here is the News

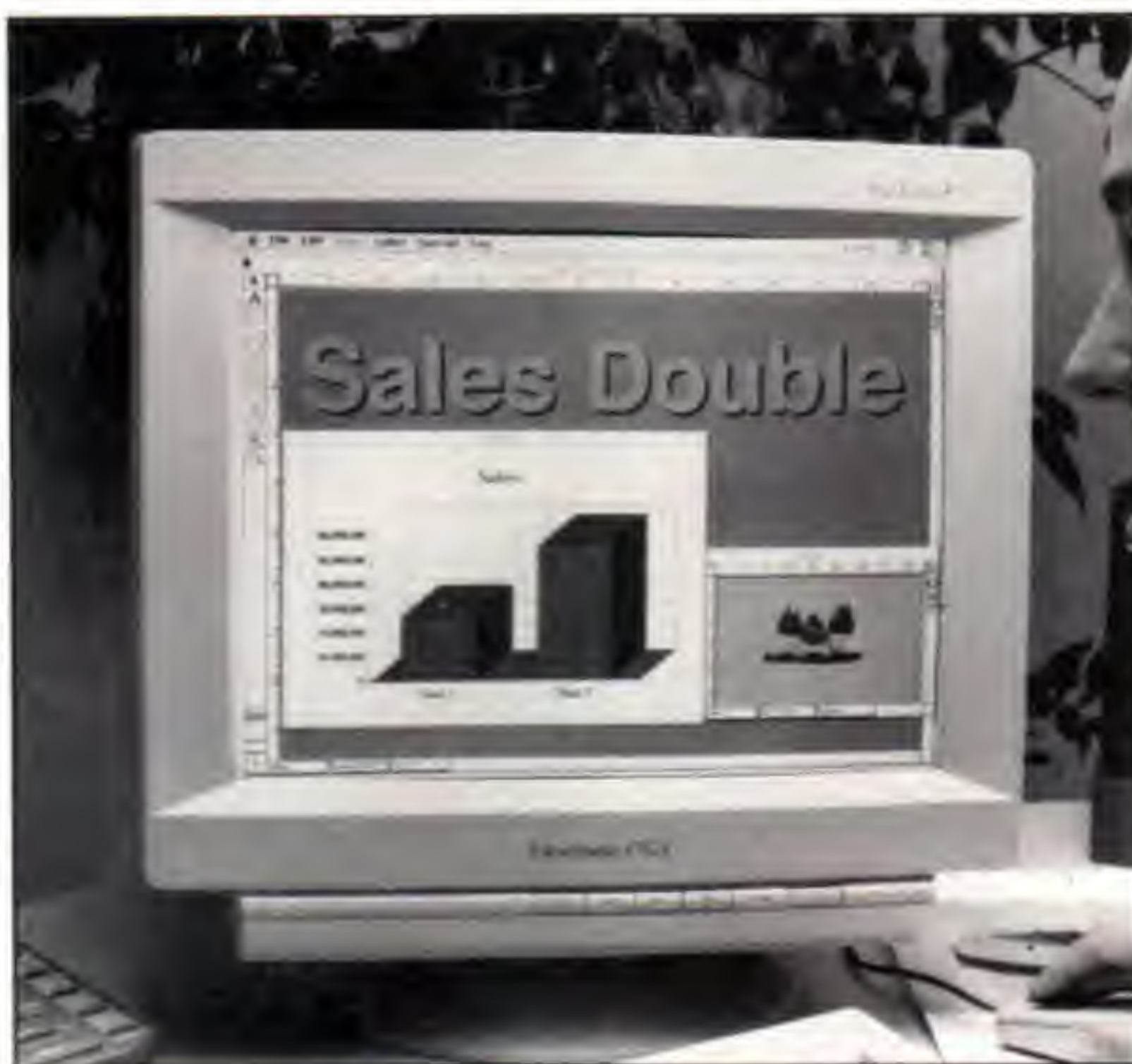
All you ever wanted to know but didn't know existed... Thirteen years of computer, telecom and interactive services news reporting by Newsbytes News Network is now available on CD ROM. The Newsbytes 1995 Update CD ROM contains all Newsbytes news stories written from May 1983 to May 1995. This techno-history Update disk is priced \$24.95 (plus \$5.00 p&p).

The CD ROM is said to contain more than 64,000 news stories, written by the 19-member Newsbytes reporting team and contributing publications worldwide. (Wow! That's even more than **AUI's** NewsFile. Just.)

The Newsbytes 1995 Update CD ROM, published by Wayzata Technology includes the computer, telecom, interactive and online services markets worldwide, providing a reference on the companies, products and people. They can be keyword searched, with more than 475 publication-quality JPEGged images, illustrating the news stories. Useful for librarians and researchers alike.

One day all our **AUI** NewsFiles will be recorded like this for posterity.

ViewSonic's Healthy Monitor



Viewsonic wants you to stay young and healthy.

ViewSonic say they have been looking at developing easy to use safe monitors and has come up with Plug & Play and TCO'92-compliant 17 inch monitor, the ViewSonic 17GS.

Claimed to be easy to install and customise, along with meeting TCO'92 the world's top health and safety standard, the Graphic Series monitor is targeted to users of text and graphics applications for business or at home.

The V17GS has, what the company say is a unique OnView on-screen control system to adjust up to 20 settings including ViewMatch for colour adjustments, and offers an 86Hz refresh rate at 1,024 x 768, a 0.27mm dot pitch and a new super contrast screen.

Contact: ViewSonic, Airport House, Purley Way, Croydon, CR0 0XZ. Tel: 0181 781 1856.

Cooked Up Home Shopping

Thomas Cook, the travel agency, is offering a new service to holiday makers which will let them order foreign currency and travellers cheques through their televisions and have the cash and cheques delivered to their homes.

The service is being offered as part of a home shopping project co-ordinated by BT. Customers will be able to use a TV remote control to browse through a range of holiday options.

Thomas Cook will be selling a range of holidays in the pilot pro-

gramme including city breaks, skiing holidays and long haul destinations. A Thomas Cook spokeswoman said there would be maps and video clips of resorts as part of the service which will initially be open only to selected homes in the Ipswich area.

Ipswich? Why Ipswich? Do the Ipswichians travel abroad more than the rest of us. What's behind this favouritism of the east coast? Why is BT spending our telephone bill money on skiing holidays for people from Ipswich of all places? What are they cooking up? The truth must be told!

Quotes of the Month

Referring to the price of CD games: "I think £45.00 will probably be extinct by the end of the year." Tim Chaney, Virgin MD.

One of the problems that cartridge games people didn't solve and hence the crashing fall that Sega and Nintendo have taken that has brought companies such as US Gold into trouble was the ridiculous price of games rising up to even around the £70 mark.

Tim Chaney, one of the brightest people in the business, and who once worked for Commodore, has undoubtedly got it right. Exorbitant prices kill off the market. It happened with computer games, where the response was piracy. It happened with cartridges, as we have seen and it could happen with CDs. What should the price be for games that cost oodles of cash to develop? (EA are spending £4 million plus on one under development.) Ah that's a matter for great deal of thought by the games industry. If we knew the answer we'd sell it to them for more than £45.

Look at that Keyboard!

A keyboard with keys that each displays a tiny computer screen has been developed by Zikit systems of Jerusalem. The aim, Zikit told **AUI**, is to make electronic equipment, such as photocopiers and automated production systems, easier to use.

Each key incorporates a liquid crystal display showing text, graphics or icons. Options show on other keys when one is pressed. A user could be guided through each step in a production operation.

The prototype keyboard measures 120mm sq. with 12 rectangular keys measuring 24mm by 17mm. It should be on sale in 1996.

Pure Net Genius?

Guinness, the booze company, claims to be one of the first companies to harness the power of the Internet by adding an Internet World Wide Web address to the last few seconds of its television commercial 'Anticipation'. The advertisement will allow net-literate viewers to log-in to the brand new Guinness Web site.

Hooray - we mean hic!

The site is a virtual pub called, with great originality, 'The Local', which just might be deliberately ironic given the global nature of the Net, according to Guinness. Once in the pub, users can access a number of options including a competition to win a limited edition Guinness T-shirt. Wow - a real T-shirt.

From The Local, there are connections to other sites of related interest, including 'PaddyNet' (a contemporary Irish site), Time Out (the London listings magazine) and Rage (an on-line music site).

A global virtual pub? Does it English opening hours or would that make too much like a real local?

Recordable CDs

A CD player that can play and record, will soon be available in Britain. The Pioneer PDR-05 is expected to cost around £1300.00. Although CD players have been used in professional studios for years, the price of around £3000 and fierce opposition from the music industry have kept them off the consumer market.

The music industry does not like the idea of people being able to make perfect copies of CDs, so the PDR-05 has a number of features designed to scupper would-be pirates. It can record only on to consumer blank CDs and these last 60 minutes. Most music CDs run for over an hour so it should be impossible to copy a complete disc.

Each blank CD-R disc will cost £15.00 and unlike audio tape can be recorded onto only once. The PDR-05 will also place a unique identification code on each blank CD-R disc, making it possible to trace pirated discs.

The Hottest Product

Datamonitor, in their report Compact Disc Technology and Multimedia, are predicting the compact disc will be the hottest product of the late 1990s. Moving into the sphere of video games consoles and multimedia personal computers, the company estimates that European sales of CD units - everything from PCs with built-in CD

ROM drives to Sony PlayStation and Sega Saturn game consoles - will quadruple from last year's 4 million to 17 million by 2000.

This year is expected to see the most dramatic growth for CD technology in Europe. Sales of CD-ROM drives are expected to double this year, reaching some £850 million in Europe.

Sorry, Jane's already tied up!

Electronic Arts has tied up with the defence industry publisher Jane's Information Group to create a new brand. Called Jane's Combat Simulations, the new EA/Origin spin-off is the result of a five year licensing and development agreement, giving EA and Origin development teams access to the huge database of military information collected by Jane's and allowing the software company to create what EA claims will be the gaming industry's most authentic titles. The new brand's first titles will arrive at the end of the year.

Origin's Andy Hollis is currently working on helicopter simulation AH-64D Longbow, while EA's Paul Grace is planning jet combat simulation SuperFighters.

Jane's, for anybody who has not heard of it, is nothing to do with some girl but is famous for being THE authority on military matters. For example, "Jane's Fighting Ships" is the bible of all the shipping statistics and information on all the navies in the world. Someone at EA was very bright indeed in thinking up the idea of tying up with Jane's. However, as is mentioned in another item in this NewsFile, it's the creativity and originality that put into a game not the information. So we'll see what comes out of Jane's - an unusual trophy in the global battle of the games companies.

Info on Microinfo

Microinfo, a distributor of specialist publications, CD-ROM products and other information media for professional applications, has told **AUI** that it now has available some 40 databases on subjects as varied as aquatic sciences, biomedicine, biotechnology, environment and pollution, genetics, neurobiology, and zoology.

The databases are available either on magnetic tape, for downloading and searching on customer owned computer systems, or directly from the Internet.

Payment of a single subscription for each separate database allows users unlimited access to that database for 12 months. Site licences are available at 50% extra cost which gives users unlimited access to any number of users on a single site.

This is the future of information - a mass of data to which you can buy access. Almost anything can be databased in this way. What we would like is a database of attractive, rich girls between 17 and 27 who have very liberal ideas about passionate, sensual relationships between the sexes and have a huge admiration for and an urgent desire to meet journalists who report on news.

Unfortunately it appears that Microinfo does not yet possess such a database. We wait with some impatience for them to repair the absence of such an important source of reference.

For free trials of the databases they do possess.

Contact: Microinfo Ltd., P.O. Box 3, Omega Park, Alton, Hampshire, GU34 2PG. Tel: 01420 86848.

Timex Online

Timex has agreed a deal with the US's Data Broadcasting to receive online news, sport and financial data via an FM receiver/antenna module in a forthcoming Data Link watch, at a transmission rate of 9,600 bits per second.

Timex say users will make a one-off payment for the watch rather than pay a subscription. It is scheduled for release in the USA in 1996. Neither Seiko nor Timex has said they are bringing out similar products for the UK - yet.

No in-flight peace soon

Just when you thought you might have the undivided attention of your partner, safe from contact from the office when flying, or your credit card spending restricted to in flight duty-free shopping only, BA have spoiled it all.

In the new Boeing 777, in service with United Airlines and shortly with British Airways, every seat has an LCD video screen with a handset incorporating a phone, control pad and credit card reader. (Ouch!) All are connected via a computer in the engineering bay and a radio link to telephone systems on the ground.

According to Bill Peltola of GEC Marconi InFlight Systems, who supplied the system, the technology will allow travellers to choose from up to 20 video and 122 CD quality audio channels, play computer games, access information about their destination and make phone and fax calls. And over the coming months both BA and United plan to introduce a range of other services. Pity...

Licenceware has come of age

F1 Licenceware has told **AUI** about its launch of F1 Gold. They say that each F1 Gold title will be of outstanding quality and come with a printed A5 manual and plastic sleeve (A plastic sleeve! Wow!) containing pre-copied and tested Fuji branded disks. Full technical support for each product will be dealt with by none other than the author!

Grac V1.1 allows non-programmers to create their own Monkey Island-style adventure games, and it comes with a complete game created by GRac. Price? A mere £6.99.

Blackboard V4, price £8.99, is F1's "best selling" image processor with "new features", though we don't know what they are. Magic Paint Box, priced at £6.99, is set to become the standard DPaint for kids, according to the company. It has over 84 functions in what they claim is "an easy-to-use kids" environment.

Contact: F1 Licenceware, 31, Wellington Road, Exeter, Devon. EX2 9DU. Tel: 01392 492580.

CD ROM Software

4X CD ROM for Multi-media

Multi-Platform Support

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650 MB Re-Writable Optical

data access audio

1.3-5.0 Mbytes/Sec Burst

for Amiga SCSI2 Cards & Squirrel OK

Multi-Data-Machine

Amiga, PC & Mac Software Supplied

All in one half height drive

Benchmarks
68030 Dos 40.7 Cpu Speed 1.181
Create File: 302716 bytes/sec
Write: 306066
Read: 965764

The Multi-Data Machine is based upon the PD drive system by Panasonic which gives 4X CdRom & 650M removable in one half height drive.

Fourth Level Development software for this SCSI device gives Amiga users a system which is unrivalled by any competitor.

The software supporting the 650 Meg rewriteable cartridges combines all the advantages in both speed and security of Ami-FileSafe - the new filing system which has taken the Amiga market place by storm - with the advanced software to support removable media which has until now, only been available on the Mo-Miga (Fourth Level's top of the range 1.3Gb Magneto Optical drive system). Full CD Rom software is also included.

Prices: Internal SCSI2 £549.00+VAT = £645.07
Options: external add £ 45.00+VAT = £ 52.87
Oktagon Card add £ 95.00+VAT = £111.62

SCSI 2

540M Fujitsu	11ms	160	188.00
850M Quantum	11ms	205	240.87
1G Connor	9ms	382	448.85
2G Quantum	8.6ms	720	846.00
2.1G Barracuda	9ms	790	928.25
4.2G Barracuda	9ms	1060	1245.00
9G Micropolis	9ms	1800	2115.00

IDE for A4000

850M Maxtor	183	215.02
1.2G Maxtor	275	323.12

Hard Drives shipped with AFS



Benchmarks AFS

A3000 030 Oktagon SCSI 2

Test	FFS	AFS	Units
DirScan	409	1780	Files/Sec
CreateFile	227	1073	k/sec
ReadFile	244	1363	k/sec
Seek and write 40 files (start & end)			
at 100	53.4 sec	4.45 sec	

AFS User	£29.75	US\$48	FFr 220
AFS Pro	£79.75	US\$127	FFr 592
P&P EEC	£ 3.50	N/A	FFr 26
Other	£ 3.50	US\$ 10	FFr 26
Dice V3	£98.75	US\$158	FFr 734
P&P EEC	£ 5.50	N/A	FFr 41
Other	£10.00	US\$ 10	FFr 55

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Who's That Calling?

Calls to find ways to defeat mobile phone thieves who run up vast bills at their rightful owners expense, have resulted in Vodafone developing what they term as 'authentication' software. This it claims makes it impossible for a thief to clone a mobile phone.

When a call is made on a conventional analogue phone, it sends two

signals to the network to identify itself - its phone number and an electronic serial number. The network checks the authenticity of these numbers before connecting the call.

Unfortunately, thieves with commercially available scanning devices can capture the transmitted numbers and use them to clone stolen phones. Keep that phone safe!

Pixel Digital's New Stuff

Pixel Digital have told **AUI** about their latest list of products. Picturebook is a new demo from Axis (of Bigtime Sensuality fame) price £4.00.

Fruit Kitchen is a new demo from Silents which was entered to the Assembly '95, price £1.00

Alien Bash II is a Chaos Engine look alike. Price £1.00

Hippoplayer V2-08 is a module player that includes "all the usual features of surround sound", mono 14bit stereo etc. Price £1.00

Assembly '95 Intros - A collection of intros from the Assembly Party. (Vote Assembly!) Price £1.00

Vark Cli Utils 8 - A "popular collection of tools." (Hand me my screwdriver, please!) Price £1.00

Planet M - A demo from Melon Design, price £1.00

Sauce & Code 2 - A diskmag from NFA that covers programming in Amos. Price £1.00

Enlock V1-4 - From NFA, a hard drive protection system, price £1.00.

For info about these and other goodies,

Contact: Pixel Digital, Unit 6, Laurel Business Centre, 15 Laurel Road, Liverpool. Tel: 0151 259 4017.

Interactive TV on trial

Video-on-demand specialists Video Networks has told **AUI** that it is planning to launch an interactive TV trial in Hull next year.

Following BT's current trials in Colchester (see Technology supplement), Video Networks has struck a partnership with Kingston Communi-

cations, a local telephone company, to deliver the on-line video service to 250 homes.

The trial package, known as VideoNet, will include interactive learning packages, home shopping and banking as well as Hollywood movies and other programmes.

An on-line marketing assessment programme will allow advertisers to gain feedback on anything from ads to packaging. The company hopes eventually to expand the service nationally on the back of BT's network.

HP Gets Sauced Up

Hewlett-Packard, which by turnover is the second largest computer company in the world, has boosted its third-quarter profits by 66%, outperforming Wall Street's expectations. Turnover growth was 'outstanding' the normally conservative US computer and electronics manufacturer said, with demand across all its range of products.

In particular, demand was strong for new versions of HP's DeskJet printer, which is now probably the best selling printer around the globe. The company's PCs, workstations, multi-user computers and printers are all gaining market share, industry analysts said.

Microsoft's 20 year record

Microsoft has completed its fiscal year with record results. For the 20th year running the company has seen growth in revenue and profits. (Goodness they must have a successful product or two!)

Revenues for the year were around £4 billion, a 28% increase over the £3 billion reported last year. Net profit was £1 billion. And more to come from Windows 95?

AMIGA'S NEW MONITOR



For those who are upgrading to the new 1200 'Magic' pack which has W/P, Organiser etc, included, the might like to consider Amiga Technologies' new monitor, M138S too. Not only good looking but its auto scanning makes it compatible to all video sources and the modes of the A1200 and A4000T. It has two stereo speakers, 14" antiglare screen, 0.28mm. pitch, 800x600 non interlaced or 1024x786 interlaced resolution, and, very important these days, low radiation. And, of course, it matches the Amiga. Sounds like it could be an ideal monitor. Price £299.

Copyright for Internet

The media and entertainment industries are to urge the government to introduce a transmission right to ensure intellectual copyright owners are paid when their images, words or sounds are distributed on the Internet.

The transmission right is part of a package of proposals which will be presented to the Department of Trade and Industry by a working party composed of representatives of music, media, film and computer companies including the BBC, International Business Machines, Pearson, PolyGram and Bertelsmann.

Stylish or what?

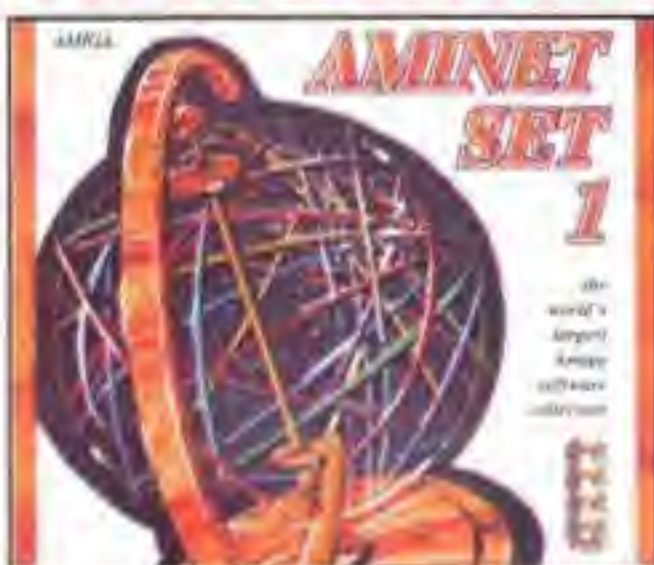
Hair company Wella is out to prove it is combing the edge of technology with the launch of a video game, Shockwaves express, to promote its Shockwaves mousse and gel to trendy teenagers.

£1.1 million has been invested in advertising and the promotional campaign on TV, radio and magazines to accompany the release. A case of technology hair today and bald tomorrow?

Aminet CD 8, dated August 1995, consists of approximately 7.1 gigabytes of software in 3600 archives. Since the release of Aminet CD 7 more than 340 MB new software has appeared. The current edition has a special focus on modules, more than 1000 mods from Aminet were included. User friendly access software makes the Aminet CD 8 a pleasure to use. **\$14.95**



CDBoot is a fantastic new product that enables you to use almost any CD32 games on an A1200 or A4000 (with AT or SCSI CD-ROM drive and any filesystem). You can create a configuration file for each CD, containing information on the joystick emulation. It can also save the highscore of each CD32 game. The usage and installation of CDBoot is very easy, also for beginners: due to the excellent English manual. Since the compatibility is very high, you can use 98% of CD32 games currently available. CDBoot is an excellent software solution for all Amiga-freaks, who would like to enter the world of CD32 games! **£34.95**



Amnet is the world's largest collection of freely distributable Amiga software. Up to 10,000 users access the vast archive every day, and countless programmers publish directly via Amnet. Until recently access to Amnet was restricted to international network users. 9498 Amnet Set I, consisting of 4 CDs, the complete archive is published for the first time. This CD-ROM-collection, which is dated January 1995, offers an almost inexhaustible reservoir of top-value Shareware. A wide variety of programs is included: Applications, Games, Demos, Utilities, Mods, Animations, Developer-Material. — It contains approximately 4 gigabytes of software in 12,300 archives and you will enjoy the undisturbed operation. **£39.95**



important part of Amiga computing. Many users already own a CD-ROM drive, and this number of software packages available on CD is increasing steadily. Until now, though, it was not possible to write to CDs. We have solved this problem with our new revolutionary product: Ralph Babel and Stefan Oskowski's Schatztruhe are proud to present what can be considered a marvel of technology. CD-Write enables you to virtually write to CDs with an ordinary CD-ROM drive. From now on, you will be able to write, delete, and modify data on your CDs. This product will take you into a new era, and you will be able to utilize CD-ROM technology to its fullest. **CD-Write**



This CD contains 40 games for the Commodore Amiga from different categories: Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers, Delight will hold you captivated for hours and guaranteed long-lasting pleasure. All games are commercial versions - no public domain & no demo! This CD can be run on any Amiga with CD-ROM drive, CDTV or Amiga CD32. Console with 1 MB free memory and Joy stick/Joypad. **£29.95**



The LIGHT ROM 2 CD contains almost 650 megabytes of 3D objects, images, images sequences, scene files, surface attributes, bump maps and textures in IFF and TARGA formats, DEMs, and Lightwave related text files. LIGHT ROM is an invaluable resource for Lightwave users, and as a bonus, includes material for Sculpt 3D and Imagine users. **CAA-95**



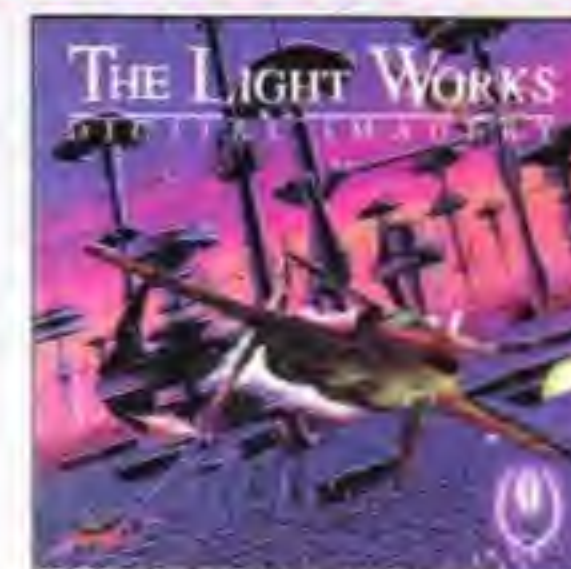
The de capo CD-ROM is a source for high-quality music, both for listening enjoyment and for samples to use in creating your own music. This is not just another random collection of modules. Many modules and samples are exclusively to de capo. Included are more than 1400 of the best available modules and 2000 high-quality samples. **\$29.95**



Gateways) offers NetBSD 1.0, a full featured UNIX-like operating system with both sources and binaries for the Amiga, 386, Sun 3, and other architectures. Go networking with the large selection of supplied networking tools. Other supplied packages include a binary release of the X-window system (X11R6) for the Amiga, with many additional clients, and packages such as perl, emacs, games, mail programs, and many megabytes of important text files such as RFCs and FAQs. A complete installation guide is available on the CD. There are also some AmigaDOS internet utilities, such as clients for AmiTCP and Envy. **\$9.95**



The *Meeting Tools* Volume 3 contains 550 MB of the latest PD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 35 MB of selected HelpPages - 50 MB graphics programs and data - 15 MB games - 10 MB from "The Party '94" - 13 MB disk - hard disk CD-ROM and SCSI tools - 19 MB various other tools - 11 MB educational software - 25 MB terminal programs - 25 MB animations, mainly from Eric Schwarz - 40 MB developer tools (i.e. pre-installed compiler [DICE, Oberon, Modula], Commodore includes GUI Tools) - 9 MB music programs - 10 MB midi programs - 27 MB pictures - 60 MB texts, FAQs, CD contents files, etc. - 40 MB linux for Amiga - 100 MB Text installation (PostTex int. 600 dpi and for fonts) - 38 MB movie data base - 50 MB archives for Pison - 18 MB modules - 50 MB NetSD for Amiga. **99.95**



Raytracing. A fascinating area of the computer graphics pictures have the computer perfectly rendered, fascinate people all over the world. The range was the first computer to be used for raytracing, and today it is still a leader—with many high quality programs. A real artist of raytracing is Tobias J. Richter from Cologne/Germany, whose detailed objects attract the people. Especially his space ships of famous science fiction films are used to demonstrate the capabilities of a raytracing program. The objects are highly detailed and extremely realistic due to the application of complex surface textures of the models. Until now it was difficult to acquire these objects in order to create ones over several or astronomical. **£29.95**



Texture Gallery is a 2-CD-ROM set containing over 1.3 gigabytes of textures designed for graphic artists. Included are hundreds of 32-bit textures in several different formats, including IFF, TARGA, JPEG, PICT, SGI, and TIFF. These textures are perfect for use with 3D programs like LightWave 3D and can be used to create bump maps. All of the textures are represented in thumbnail renderings for easy previewing. **\$44.95**



The Irishish CD-ROM series, produced directly by Fred Fish, provides design users with hundreds of megabytes of the latest freely available software. Published approximately every two months, each volume is a two CD set containing new submissions since the last volume, as well as an ever growing selection of tools, libraries, documentation and other useful material that is updated with every release. £29.95



Volume 2 of the Goldfish series contains a selection of software, animations, pictures and other material released on FreshFish CD-ROM between October 1993 and November 1994, with most of the material updated to the latest available versions. All material is included in both archived (BBS-ready) and unarchived (ready-to-run) forms.



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CyberVision 64

Colourful Amiga dreams could be coming true. Gary Fenton test drives a highly sought after graphics card.

The latest in video graphics technology has arrived for the Amiga 3000 and 4000. Based on an expensive high performance 64 bit processor, the Trio64 from S3, CyberVision is built to impress and will take your Amiga where no Amiga has gone before. S3 chips are used in some PC VGA cards, but CyberVision is far more sophisticated and doesn't disregard special Amiga features such as superbitmaps and draggable screens.

Instantly enhancing an ECS or AGA Amiga with 8, 15, 16, and 24 bit graphics (16.8 million colours) and resolutions up to 1600x1200, CyberVision 64 opens up new horizons for design, image processing, painting, and scanning. While HAM8 can produce a very convincing true colour image, it's very slow to work with. Even 256 colour screens flow like treacle, especially when moving windows and running through pull down menus. This is where CyberVision comes into play.

Instead of generating the Workbench and other In-

tuition screens using the Amiga's graphics hardware, the information needed to generate the display is passed on to CyberVision which uses its high speed processor and 64 bit blitter to draw then screen far quicker than the Amiga could possibly manage under its own hardware.

CyberGraphics

With resolutions up to 1600x1200 and in depths of 8, 15, 16, or 24 bit, CyberVision adds many new displays to the Amiga's screen mode database. A very special (included) software package called CyberGraphics effectively patches the Amiga's OS so it can use real Intuition screens in 24 bit colour! It works with OS friendly programs such as Art Department Pro, Photo-genics, MovieShop, DOpus, Final Writer, and many other programs which let you choose your own screen mode and are written following Commodore's programming guidelines.

And then there's Workbench. Using a high resolution screen like 1280x1024 with MagicWorkbench makes your Amiga look better than most big workstations! And it's very fast too when it comes to dragging windows around, especially pretty with colourful backdrops and even 256 colour icons if you use the NewIcons program available in the public domain.

CyberVision screens are draggable just like Amiga screens (although you can't reveal Amiga screens when you drag down CyberVision screens and vice versa). Even superbitmap screens can be scrolled smoothly just like the Amiga but in 24 bit colour!

CyberVision 64 integrates extremely well into the Amiga's OS, so well in fact that you could be mistaken for thinking



Workbench with a resolution of 1600x1200 running some of my favourite programs all on the one screen.

you've got your hands on a AAA Amiga! (RIP)

Support Software

There are five programs packaged with CyberVision including Photo-genics Lite. As the name suggest it's a cut down version of my favourite

graphics package, Photo-genics. The limitations are that it will only load GIF, IFF, and JPEG images, save IFF24 and JPEG, and has only(!) 32 paint modes. There's no crop, compose, or warper tools, and the alpha channel doesn't work.

I urge anyone with a graphics card which is supported by CyberGraphics

Multiscan Monitors

While it's possible to use a regular PAL 15khz monitor with CyberVision (like the 1084 or a TV/monitor with an appropriate adaptor), you will severely deprive yourself of features such as high resolutions and flicker free displays.

A multiscan monitor is really essential if you want to go beyond normal Amiga screen modes. Most PC type VGA monitors are ideal as they can cope with high line frequencies such as 56khz. The trouble is that PC monitors can't handle low frequency 15khz displays which means such monitors are useless for Amiga games, demos, and anything else which forces you to use 15khz Amiga screen modes.

Some multiscan monitors which were designed with the Amiga in mind, such as the Commodore 1950/60 and the Microviteks, can cope with displays between 15 and 38khz. Despite the 1960 monitor's manual quoting its highest frequency as 37khz, I've got it to work at 48khz with CyberVision! It's not wise to go beyond the manufacturers' specifications (like driving a 118 mph Escort at 140 mph) so I've settled for 38khz.

CyberVision has an video input port which you must connect with the Amiga's external RGB video port with the supplied cable. When you (or the Amiga) needs to display a native Amiga screen mode, CyberVision lets the Amiga's RGB signal pass through to the monitor. So if your monitor can display 15khz screens you can use the same monitor for games, demos, badly programmed software, etc without having to unplug anything.

Big Screens

As to the size of your monitor's screen, despite the phrase "size doesn't matter" I have to say in this instance it does. Any screen mode beyond 800x600 on a 14" monitor will strain your eyes in attempting to read screen text. A 17" monitor is strongly recommended if you plan to use the higher range of resolutions.





Lots of pictures scaled in windows on a 24 bit Workbench.

to buy the complete Photogenics package. Drawing directly on to a true 24 bit screen makes Photogenics seem like a brand new package all over again! Away with the approximated HAM8 preview display and hello to the clean, perfectly accurate 16 million colour display!

The bundled mode promotion software, called NewMode, is the best software of its kind I've come across. It can force any screen from any program to open in whatever screen mode you like. Some programs such as DPaint, Adorage, LightWave and Brilliance don't work properly, or crash, if you try to run them on a CyberVision screen. NewMode lets you make sure they never use a CyberVision screen. In contrast, programs like Forge, ProCONTROL, Imagine, and Final-Copy can be forced to open on a flicker free, rock steady CyberVision screen.

Additionally, a comprehensive CyberVision screen mode editor is included which not only lets you specify the capacities of your monitor, but if you are confident and careful enough you can create brand new screen modes for CyberVision. For example, I created a 736x566 31khz 256 colour

mode just as an experiment.

The highlight for me was using CyberVision with the shareware Mac emulator, ShapeShifter (reviewed last issue). Thanks to CyberVision's chunky to planar conversion hardware I can run ShapeShifter in 24 bit colour which is very impressive as it's just as fast as any real Mac!

The Future

CyberVision comes installed with either 2 or 4 Mb of video RAM. CyberVision screens don't use any Chip RAM whatsoever which is good news, and you can upgrade 2 Mb CyberVision boards yourself to a total of 4 Mb - which is needed for beyond 256 colours in the very highest resolutions.

Phase 5 plan a PAL video encoder module for the future as well as a DSP processor, J/MPEG and digitiser modules. These will plug into the main CyberVision board. I've heard a similar story before so I'll wait for the modules to arrive before getting excited.

Conclusion

CyberVision had a lot of hype to live up to and has no way disappointed me. It's so fast, having true 64 bit



These are the new screen modes added to the Amiga's database. If you don't see a mode you want then just make one up!



Here you have to tell the CyberGraphics software about your monitor. The information should be in your monitor's manual.



The screen mode editor. Caution, patience, and trial and error are required, but you shouldn't have to edit any pre-defined modes.

Buster Beware!

CyberVision is a true Zorro III card which could have spelt bad news for Amiga owners with bugged Buster chips. Pre-version 11 chips were flawed creating problems when transferring data. Only the most recent Amigas made before the demise of Commodore had working version 11 Busters.

Phase 5 have found a way around the problem and simply closing a jumper on the CyberVision board will specify you have a pre 11 Buster and cure any problems. I can vouch that this works as I have a version 9 or 10 Buster. Apparently CyberVision is even faster if you have a version 11 chip! Well done to Phase 5 for preventing so many Amiga owners from being disappointed.

Please note that you will need at least Workbench 3.0 to use CyberVision.

architecture, that one of the included image viewers lets you scale pictures in real time! Drag to re-size the window containing a 24 bit picture and release the mouse button - bang! The image is scaled quicker than you can blink - I kid you not.

The only thing which annoys me is the mouse pointer. The CyberGraphics software doesn't rescale it, so in high resolutions you have a tidy little pointer which is easy to lose unless you have a large monitor. I drew a much larger pointer in the Preferences program which did the trick but the pointer then appears huge on lower resolution Amiga screens!

Should you be into graphics, design, image processing, or scanning, this is definitely the graphics card to go for if you want fast, true colour, high resolution screens to work with on your Amiga. This is yet another quality product from Phase 5 who continue to produce excellent Amiga hardware which will keep the Amiga alive and on top for many more years. **AUI**



Photogenics Lite comes bundled with CyberVision.



The full blown version of Photogenics running on a 768x576 24 bit CyberVision screen.

RATINGS

Cyberstorm 64

FEATURES	94%
PERFORMANCE	97%
INSTALLATION	95%
VALUE FOR MONEY	86%

Overall Rating 96%

INFO

Price:
£329.95 2Mb,
£439.95 4Mb
Contact:
Gorden Harwood Computers
Tel: 01773 863781

Mixing it with the Big Guys

Mix N Match

Even the most basic home MIDI studio set-up needs a sound mixer. Put simply, the mixer combines sound from different sources and sends the sound to your amplifier/stereo. That means the audio output from your Amiga, keyboards, drum machine, microphones, tape deck... anything can be mixed together and the 'colour' of the sounds adjusted.

Even the beginner set-up of one keyboard and a MIDI sequencing Amiga could use a mixer - to combine the Amiga channels with your keyboard, for example. Most software sequencers enable you to trigger Amiga sound samples at the same time as they control the operation of your synth/keyboard. You need a mixer to combine the sound and send it on to your amp.

When your studio expands to include more sound sources - extra keyboards, modules, drum machines, guitars and vocals - you'll need a mixer with multiple inputs.

Choices

There are two types of mixers. The first, and probably most familiar to you, is the typical recording studio multi-channel desk covered with vertical lines of knobs, and those neat volume sliders in a row along the bottom.

These divide into two types - those designed for multitrack recording (onto multitrack tape) and those designed for live and non-multitrack recording work (straight to tape).

Multi-track capability means you can play and record one part of the song, say, the drums, and rewind back to the start and record another part alongside the first. Each channel remains separate on the tape, so can be altered and processed separately, but when played, can be heard together.

Mark Blackham listens to the sweet melody of three low-cost sound mixers built to sit alongside your Amiga music studio.

Non-multitrack mixers are a cheaper type of sound processing mixer with a limited number of output channels.

Line Mixers

Line mixers are less complex units which do the same job of combining multiple sounds inputs into a single two channel stereo output, sans the usual knobs and sliders. These units don't allow you to fiddle with the sound characteristics as they pass through the mixer. So any alterations in sonic nature (emphasise the bass, boost the signal etc) must be achieved at the source. Such mixers do not usually have microphone XLR jacks, but rather a panel of straight 1/4" line jacks with two stereo output lines at the back.

Flexibility

You need to match your current and anticipated output requirements with the price you can afford. The old story of going for that bit more than you think you can afford still applies.

Line mixers are ideal for low-cost non-vocal studio setups - especially since most synths now have their own effects and sound colour processing units built-in. That means all you need is a unit which combines these sounds and sends them straight to amp/recording devices.

Most musicians, even home-based ones, may well need to add live vocals at some stage, there-

fore requiring XLR jack inputs in their mixer. The vital difference is that despite the sound processing power of 90s electronic instruments, it is still far easier to tweak and combine sounds on the single mixing desk panel.

Flexibility is a key ingredient in any mixer. You are bound to need more from your mixer in the future, and may devise all manner of ideas which your mixer must handle. Here are some options

Gillet Mixer

The Gillet Little Gem mixer has a lot of the sound processing power of larger mixers - but with only two channels. It could be used for processing or combining any sort of audio inputs but is particularly well-suited to acting as a kind of graphic equaliser, touching up the Amiga sound as it passes through on its way to stereo output.

Two input channels take your sound sources. Two lines of coloured knobs allow you to tweak the sound this way and that. Two output jacks connect through to a stereo, or whatever, so you can hear the sound.

As a basic graphic equaliser, the Gillet Little gem is handy, but it is even more useful for combining your Amiga sound with another source. Merge your two Amiga sound channels via a two to one stereo cable, and plug that into one of the Mixer channels. Stick another audio source, like a CD player or your voice through a microphone, through the other

mixer channel. The two can now be processed and merged, and output to an amplifier and mixer. It's a brilliant way of doing karaoke to Amiga modules or trying to play



Useful for combining Amiga sound with another source.

along with pre-recorded songs.

Another option is to insert the Mixer between your sampler and source, and boost the signal or alter the equalisation in real time.

As was mentioned in last month's **AUI** (October 1995), the quality of the Gillet Mixer is self-evident; sturdy box, direct movement of controller knobs and sensible lay-out and labelling - it should be for the price you pay.

The box is powered by a small PP3 9-volt battery or 9 to 18 Volt DC transformer (not included).

The Gillet Little gem is an extremely useful addition to the equipment armoury of an audio buff.

RATINGS

Gillet Audio Mixer

FEATURES	80%
PERFORMANCE	87%
DOCUMENTATION	60%
VALUE FOR MONEY	50%

Overall Rating 75%

INFO

Price: £69.95
Contact:
Gillet Multimedia
10 St. Audrey's Way
Ely, Cambridge
CB6 1DF
Tel: 01353 669203

SPIRIT

WHO IS SPIRIT'S DESIGN GURU?

At Spirit, we're all passionate about our mixers. But no-one is more passionate than the innovator behind every Spirit console, co-founder of Soundcraft Graham Blyth. Graham's been designing the world's best mixers for about 25 years and relentlessly seeks perfection (Graham will never say "I'm completely satisfied"). But he might say "Mmm, that's a step in the right direction". Every new Spirit mixer he designs makes professional audio quality and features more affordable. Audiophiles love him, other mixer designers envy him. Graham cannot abide poor design, whether it be electronic or ergonomic, and he becomes very emotional about some of the things that the competition gets away with. His philosophy is that every customer has the right to expect quality, because elegant solutions don't have to mean extra expense.



Spirit stunned musicians and engineers with the launch of Folio, the world's most versatile and affordable high quality personal mixer. Now there's Folio Lite, making the concept of low-cost quality mixing even more affordable.

HOW AND WHERE YOU COULD USE FOLIO LITE

- Home Studio mixer
- Submitting in a Studio
- Live Submitting of Drums or Keyboards
- Location mixing direct to DAT
- Audio Visual mixer
- Multi-Media mixer
- Tape Monitor mixer

1 Quiet Inputs, with Huge Signal Handling Capacity

At -129dBu EIN, Lite's mic preamps are actually quieter than many large "pro" consoles. Our new mic preamps give you even more signal handling than before, now you get sensitivity ranging from -4 to -60dB, rather than the usual -10 to -50dB, that's **five times more** handling capacity than other consoles. This means that you can connect almost anything from low output ribbon mics to active DI boxes with headroom to spare.



2 PFL Solo System

Among small mixers, only Lite lets you monitor individual input channels. You can even monitor the stereo inputs in stereo so that you don't have to rely on a potentially misleading mono sum solo.

3 Fader Zero dB where it should be

On Spirit consoles, the "0dB" point is further round the fader's travel than the standard half-way mark. That way you get more fader resolution where you really need it for smooth, precise control instead of the annoying leaps in level that happen with even small movements. That's because other faders just don't have enough resolution in the right place.



11 GOOD REASONS FOR OWNING SPIRIT LITE

GRAHAM BLYTH'S HANDS-ON GUIDE

But low cost doesn't mean we've skimped on the little details that can make the difference when you're working on tracks, playing at a gig or mixing to video. That's because Folio Lite has been designed by Graham Blyth, a perfectionist who believes that even the smallest flaws can seriously compromise your mix.

So here are 11 things that Graham slaved over to meet the challenge of designing Lite. There's no hype, just the real reasons why Lite stands out against the competition - taken straight from Graham's notebook.

4 Consistent Rotary Controls

Off-the-shelf controls are seldom good enough for the consistent response you need when fine-tuning a mix. Spirit consoles have custom-designed potentiometer laws that guarantee predictable response to any movement.

5 Balanced Inputs and Ground-Compensated Outputs

The combination of both of these godsend on one console is exclusive to Spirit at this price. They protect most input and output signals from interference and noise, even when ground loops, hum fields and lighting rigs try to corrupt your signals.

6 Mono Channel & Mix Inserts

You can connect signal processors like compressors and graphic equalisers to give you more creative control over your mix.

7 British EQ

For an authentic "British" sound, we've given you carefully selected, musically useful points at 80Hz for kick drum thud and 12kHz for top end sizzle or to cut through the mix instead of the typical 100Hz and 10kHz. Compare the sound with others and you will accept nothing less.

8 Dedicated Tape Return

This saves you 2 valuable inputs when playing pre-show music, and is essential for DAT mastering. By routing to mix you have a staggering total of 16 inputs at mixdown.

9 Aux 1 Pre/Post switching

You'd expect just one monitor and one effects send, but Lite's Aux 1 can be switched Pre for foldback monitors or Post to use an extra effect send at mixdown.



10 Long Travel Switches

You can see instantly whether any switch is "on" or "off".

11 Very Compact

Lite measures just 300mm wide by 266mm deep, and is only 38mm high.

12 Designed & Built in Britain

Ok, so Graham found 12 reasons for owning a Folio Lite. Accept no substitutes.

Spirit by Soundcraft
Harman International Industries Ltd.,
Cranborne Industrial Estate, Cranborne Road,
Potters Bar, Herts EN6 3JN, England
Tel: +44 (0)707 665000
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SPIRIT
By Soundcraft

H A Harman International Company

Spirit Folio Lite

The miniature end of the highly respected, British-built Soundcraft range, the Folio Lite is designed specifically for home use.

Lite weighs in at 2.5kgs - which is surprisingly heavy for its physical size - revealing how much circuitry has been crunched into the small space. It measures a mere 265mm by 300mm, and is only 30mm deep.

When searching for a mixer, be wary of the "input" claim, and look instead for the number of channels. This is the pure number of sound sources the mixer can handle at any one time.

Lite is an eight channel mixer, sporting four mono channels and four stereo. The mono channels also feature the option of inserting XLR microphone jacks. The claimed 12 inputs are reached by including the two line inputs for the four stereo channels. Alternatively you could count in the extra stereo inputs set aside for effects unit returns or tape playback.

Every channel has its own set of vertical in-line knobs for processing the sound. These start from the

top with trim/gain control, high and low frequency accentuators, two auxiliary volume send controls, a pan/balance operator and rotary fader.

The last is a key difference between the Lite and higher spec models. There is no room for the traditional sliding fader, but these rotary faders work just fine. There's less 'feel' and smooth control over them compared to sliders, but a user with medium requirements would not notice the difference.

To the right of the mixer is the main monitoring panel, with neat three-coloured LED bargraph meter for watching sound levels and avoiding peaking. This can be used in conjunction with the PFL (Pre-Fade Listen) buttons across the bottom of the channel lines to select a channel to listen to on its own.

This panel is also where you can set the volume of your effects return and two track (stereo) input, which have their input jacks along the top section. It is possible to use the two track input as a two extra channels at mixdown - when you are playing back for the final recording.

The main control panel also

harbours the phantom 48V power switch - which must only be used to feed mics that require power. It is impossible to use a combination of powered and unbalanced mics, as this switch sends power to all sockets. A small problem, not major - just make sure you use one or the other type of mics.

It looks as if there is only space for connecting one effect auxiliary unit. You use Aux.1 to send the channel signal to the unit. Its processed return comes back through stereo auxiliary inputs. If you applied the same effect to more than two channels you would get a very muddy and confused sound. Soundcraft tell me you can use Aux.2, normally the stage foldback channel, for a second auxiliary, with the return being sent back to a spare channel or even the tape input channel. Clever thinking - but it would be helpful to point towards these types of inventive uses by providing more explanatory material in the manual.

In today's electronic instrument environment, most effects are added to sounds at the source, so a mere two auxiliary outs (the standard for this type of mixer anyway) is not a huge problem at the home

studio level - you could use it simply for the vocals, or universally over the channels to excite or compress the overall sound.

Across the top input jack section is a range of connectors which reveals the flexibility of the Folio Lite. The first pair are used for auxiliary outs - to the "foldback" monitor used on stage for artists to hear themselves and to an effect unit. Next door is the stereo pair of inputs used for the effect box signal return. Alongside them are the two-track tape input jacks, a pair of mix inserts jacks and the mix output jacks which you connect to an amplifier. Another pair of Left/Right jacks is also provided to connect to the monitor amplifier, and a single stereo jack at the extreme right is used for headphone listening.

Mix Down

Folio Lite comes with a dedicated power supply unit, which uses a weird little connector plug. Lose or forget the power supply and you can't use another type to power your mixer.

It's hard to fault the simple but informative manual, but Spirit



Folio Lite - eight channels, four mono and four stereo; each channel has its own set of vertical in line knobs.

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Mixing it with the Big Guys
CONTINUED

Soundcraft's Folio Si - Clean, crisp and doesn't interfere with sounds passed through.

would have been wise to include more information on the principles and approaches to sound mixing. Some examples of connection methods would have also helped the novice user likely to buy this machine in getting the most out of the unit.

Folio Lite lies flat on the desk - most users like a little tilt to the panel, so you'll need to prop it up with something.

Mixers apply their own sonic perspective to the sounds that go through them. Musicians and sound engineers talk of "head room" and "space" being desirable features of a mixer. Not surprisingly for its size, the Folio Lite does have a slightly tight feel to the sound - but it's so slight, since the electronics are essentially the same as the higher Folio models, that you won't feel it until you've progressed onto the big models many years later.

Mix Up

The small but powerful box, well designed and with an excellent sound, is perfect for the home musician seeking a mixer to rest next to their Amiga.

The price is equal to the sturdy, reliable quality, and the limited number of channels will be barely

noticeable to the first time user with a basic studio setup. There is room to expand, and when you finally outgrow it, Folio Lite will serve as an ideal studio submixer, drum mixer or even audio/video mixer.

RATINGS

Spirit Folio Lite

FEATURES	85%
PERFORMANCE	91%
DOCUMENTATION	76%
VALUE FOR MONEY	83%

Overall Rating 84%

INFO

Price: £311
Soundcraft
Harman International Industries
Cranbourne House
Cranbourne Road, Potters Bar
Herts, EN6 3JN
Tel: 01707-665 000

Spirit Folio Si

Those with a few more wads of cash and more demands from their Amiga music studio ought to fix their gaze on this beauty - the Folio Si.

Many like me would rather have a full 4-bus or 8-bus mixer (a professional level multi-track mixer)

but realistically, even if we could afford it, we probably wouldn't really need the full capabilities of such a unit (we'd need a multi-track recorder to start with!).

Synthesizer-based musicians become a tad frustrated with the trade-offs forced on them by traditional mixers. Virtually all the channels are mono-only - requiring you to use up two channels simply to process a stereo synth sound. What we need is a stereo-channel mixer with a few additional mono / mic source capabilities.

The Folio Si meets that need admirably. It looks like the Folio Lite, only the larger panel face provides far more room for the channel control knobs and the sliding fader. That means there is less finger jamming knob twiddling.

The eight stereo channels and two mono provide what would amount to 18 channels on an ordinary mixer. The two mono channels also have XLR mic jacks, with phantom power standing by.

Each channel has three-band equalisation - high filter, low filter and a very important mid range tweaker.

Folio Si is essentially the same in operation as the Folio Lite desk. Extra features include an input level switch to change between +4dBu and -10 dBV, a 100HZ Hi-pass filter to kill bass frequencies and reduce hum and microphone

popping and an option to have the mixer rack mountable or with a moulded handle which stands the mixer on a slant.

The construction of the Folio Si is consistent with Soundcraft's reputation for great-sounding mixers. It is clean and crisp and doesn't interfere with the sounds being passed through. Equalisation is very acceptable and responsive - returning exactly sounds I was after.

If you have the money and envisage your Amiga studio growing, or it is already sizable, then the Folio Si could well be a very desirable acquisition. **AUI**

RATINGS

Spirit Folio Si

FEATURES	90%
PERFORMANCE	94%
DOCUMENTATION	78%
VALUE FOR MONEY	85%

Overall Rating 91%

INFO

Price: £524
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The new Samsung "M" Range monitors are only for the serious Amiga User. They work at above the frequency range of the Amigas so you need to run in Double Pal mode, but the display is the best you will see from the largest monitor maker in the world!

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A Rather Special Drive

Andy Eskelson tests out the Panasonic LF1000E CD ROM Drive. But he finds it's no ordinary addition to the Amiga's CD armoury.

STOP! Before you turn the page, thinking 'Not another CD Drive review' read, this drive is a little bit special. It has a dual mode, the first is as a CD ROM drive, and the second is as an Optical drive capable of storing 650Mb of data on removable cartridges, at a cost of about 6 pence per megabyte.

The drive is a SCSI II device, which is good news for owners of high performance interfaces. It comes in two styles, internal fitted and as an external unit. The unit that most people will encounter is the internal.

Installation

Physically the LF1000E is a standard 5.25 inch half height form factor drive, which means, unsurprisingly, it will fit into a standard 5.25 inch drive bay. Now here is my first warning. If you choose to fit this into an A4000 as I have done, space is very, very tight. The drive does fit without any problem, but the power connectors on the back can foul against other power connectors or the back of the power unit. I overcame this problem (just) by selecting right angle power connectors which are somewhat shorter than the normal connectors.

Installation consists of setting the correct jumpers, to give you a unique SCSI device and select-

ing the termination options. Connecting the Power, Audio and SCSI cable is just a matter of plugging the cables into the correct connectors.

You also need to set your SCSI controller to look for multiple LUNs (Logical Unit

Numbers). The drive is set up so that LUN 0 is the optical storage and LUN 1 is the CD ROM.

The documentation provided with the drive is rather sparse, fortunately the supplier (Brian Fowler Computers) was very helpful and was able to provide the necessary spec sheets. What documentation there is relates to the PC and the Mac. The technical information just was not in the handbook. This is a pity, as it is only a page or two, and would have made installation much easier.

Disk Loading

The LF1000 is a dual media drive, and as such the loading of the disks is slightly different for other players. This difference is due to the optical storage cartridges (Panasonic LM-R650J PD Cartridges, to be precise), which are best described as giant versions of a 3.5 inch floppy disk. They measure

Connecting the Power, Audio and SCSI cable is just a matter of plugging the cables into the correct connectors.

122mm by 133mm by 7mm thick, and they have a sliding shutter to protect the surface of the optical media.

The LF1000 has a motorised loading tray much like other CD ROM drives, but it is quite deep to accommodate the PD cartridges. If you are using a CD ROM then this just drops into the tray as is. However, as the tray has deep sides, it is not possible to remove the disk by picking it up by the edges on either side. Removal is very easy, just a little different. You put your forefinger in the centre hole and grip the front edge with your thumb and lift the CD out. I find this method just as easy as the more standard method.



The half and half drive.

Software

The optical storage side of this drive is standard SCSI and you only need to set up the drive type. My second warning is that the Amiga HDtoolbox does NOT understand optical storage devices. DO NOT ATTEMPT TO LOW LEVEL FORMAT an optical cartridge or you will destroy it, as I found out to my cost. If you try to read the device information from the drive, you will normally get an error. HD toolbox cannot cope with the drive information. You need to set up a drive type manually, the settings that

HD toolbox cannot cope with the drive information. You need to set up a drive type manually.

worked for me were:

FileName: drive definitions
Manufacturers Name: Panasonic
Cylinders: 20289
Heads: 1
Blocks Per Track: 64
Blocks Per Cylinder: 64
Supports Reselection: NOT checkmarked

I find that inserting the optical cartridge into the drive and then performing a warm boot ensures that the Optical storage device is correctly mounted and allows the cartridges to be changed as required without any problems.

You need a CD ROM driver program. I installed AmiCDROM which is available from AmiNet and the PD libraries. Installation is just a matter of copying the driver into L: and setting up a device mountlist in Devs/DOSdrivers.

The only thing that I have not found is a compatible audio disc player. However, as I have not tried everything that is available as yet. I'm sure that it is only a matter of time before I discover a compatible audio disc player.

Performance

The performance of this system is very good. But you do have to understand exactly what you have. The CD ROM is a very good unit, offering 4X speed over the standard type. The Optical cartridge is somewhat faster, however, all the specs are quoted as READ speeds. The disk media is a phase change device, and as such the write speeds are very slow. It takes a couple of hours to format a





cartridge. Here is what the Spec states:

Access time

95mS (CD) 165mS (Optical)

Data Transfer Rate

150-600Kb/sec (CD)

518-1141Kb/sec (Optical)

Burst Rate

2.8Mb/sec (CD)

3.3-5.0Mb/sec (Optical)

Power requirements

+5V @ 1.4A and +12V @ 0.7A

I found that copying a large text file of 4947148 bytes (The Bible from CDPD 3) into the Ram: disk took between 9 and 10 seconds which is between 549K/sec and 495K/sec which stacks up very well against the stated specification. The performance of the Optical cartridge was checked using DiskSpeed 4.1 The results are interesting.



Dual format - lowering the cost.

Optical Cartridge Results

Testing directory manipulation speed.

File Create: 250 files/sec

File Open: 143 files/sec

Directory Scan: 21 files/sec

File Delete: 44 files/sec

Seek/Read: 1209 seeks/sec

Buffer: 262144 4096 32768

262144 bytes

Create file: 231524 64267

150858 226866 bytes/sec

Write to file: 302636 58866

173626 302706 bytes/sec

Read from file: 650158 112499

325079 650158 bytes/sec

For comparison here are the results for the standard IDE drive Testing directory manipulation speed.

File Create: 45 files/sec

File Open: 141 files/sec

Directory Scan: 2199 files/sec

File Delete: 300 files/sec

Seek/Read: 1410 seeks/sec

Buffer: 262144 4096 32768

262144 bytes

Create file: 170926 98383

140501 171410 bytes/sec

Write to file: 250495 127680

210051 250077 bytes/sec

Read from file: 342671 177245

301521 345456 bytes/sec

None of the tests utilises the burst mode of operation, but the results do show where the PD system is faster than the normal IDE and where it is slower.

The A4000 that I am using is fitted with the 40Mhz Warp accelerator, with 8Mb of local Memory. The IDE drive is as standard. All drives were formatted as FFS only. It is worth remembering that the IDE drive has an access time

of 9mS and the Optical drive is quoted as 165mS which makes the IDE drive 18 times faster, this will be very significant when lots of small files are involved.

When large buffers are used, the Optical drive outperforms the IDE drive for file operations. For a 32K buffer the Optical drive loses out for the Write to file operations. Using a small buffer shows that the IDE is better all round between 25-50%.

The directory manipulation speed is quite poor for the Optical system, but only one area is significant and that is the Directory Scan. This will limit the speed of finding files on the cartridge. A good directory cache program would significantly improve this aspect of the system. The other areas that show poor results all involve a directory scan. The file open is almost as good as a standard IDE.

Conclusion

The LF1000 is significant for economy as it gives the user two devices in one. The cost of purchasing a CD ROM drive, and an optical storage device is greater than the cost of the LF1000. Add to this the cost of the cartridges compared to the cost of additional hard drive capacity, the apparently high initial cost of the LF1000 becomes then very reasonable.

AUI

RATINGS

Panasonic LF1000E

PERFORMANCE	80%
SPEED	85%
EASE OF USE	90%
DOCUMENTATION	50%
VALUE FOR MONEY	80%

Overall Rating 77%

INFO

Price: LF1000 £470

Price: 650Mb Cart £39

Contact:

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A deep motorised loading tray for special cartridges.

INTERACTIVITY

At Eureka!, the Museum for Children in Halifax, the first impression was that children were trying their best to destroy the exhibits, while museum staff, in their 'enabler' t-shirts, looked on benignly. In one section children were climbing over giant, working telephones, in another they were trying to break into the vault of a life-size bank without triggering the alarm, while upstairs they were whizzing round

Eureka!

Michael Rumbelow reports on a museum that is using Amigas to break the mould of the conventional.



Above: The specially built Eureka! building. Above right: Small kids!..Big Tongue!



in wheelchairs and on crutches playing basketball. And in the 'Dreams' section and the special theatre, children are free to play unaccompanied with some of the most advanced, helmet-free interactive virtual reality systems in the world, run, - surprise! surprise! - on Amigas.

David Leon, marketing manager at Eureka!, told me about Britain's first purpose-built hands-on children's museum and its innovative use of the Amiga and Dean Friedman's InVideo virtual reality system.

Hands-On

The philosophy behind Eureka! is to educate through interactive, hands-on experience. One of the most noticeable and pleasant things about Eureka! is the absence of any signs saying 'Do Not Touch', 'Do Not Climb On' or 'Please Read Instructions'. Because of this hands-on, laissez-faire policy, exhibits have to be built to withstand a lot of physical punishment from sometimes highly excited and impatient children.

David Leon explained that this was one of the biggest challenges of running Eureka!. There are six full-time maintenance engineers and they are constantly redecorating and repairing exhibits in time

for the next day's opening. And because designers always seem to underestimate just how violent children can be, they are now normally told to take their estimate of the physical stress an exhibit will receive and multiply it by ten.

Physical Punishment

Even while I was there, we found someone had managed to start exploring the innards of a Light Harp. And particularly poignant was a solitary forlorn-looking Apple Mac, running a 'Let's talk about Smoking' program, its mouse long-since broken by hyperactive clicking and pointing. Computers, especially, at Eureka! have to be very robustly housed. This is one reason why the Amiga-based InVideo system is suitable, because there is no input device with moving parts like a mouse or keyboard - it's all done via video.

Eureka! is organised into three sections: 'Me and My Body', 'Living and Working Together', and 'Invent, Create, Communicate!'.

The three sections encourage children's awareness of the body, the community and the world respectively, becoming progressively more sophisticated. Not many of the children follow this plan consciously, but it doesn't seem to matter.

Giant Tongues

'Me and my Body' includes giant tongues, a huge mouth to climb inside featuring a loose tooth to wobble, a heart rate monitor and various other ingenious hands-on exhibits, plus a child-size robot guide called Scoot who you can talk to, (Well, it's actually someone behind the wall with a two-way radio, but who's to know).

'Living and Working Together' features a DIY recycling room and several 'real life' settings to play at being a postman, garage mechanic etc. and learn something about what they do at the same time.

'Invent, Create, Communicate!' is where most of the computers are, letting you play with e-mail or DTP and there is also a fully functional TV studio plus a range of

UK learning from foreign funsters

Eureka!, funded largely by benefactor Vivien Duffield and opened by Prince Charles in 1992, is one of a new breed of successful 'hands-on' museums designed to be fun, more like indoor adventure playgrounds than the dusty museums of old.

In the UK, this is still quite a new concept. Traditionally, British museums have always been more like graveyards of knowledge, with once lively ideas entombed in glass cases. In the old days usually the only 'hands-on learning experience' was the back of your dad's hand, hard, on the side of your head. But in other countries, where children have historically been allowed and even encouraged to enjoy themselves, hands-on children's museums are nothing new. Brooklyn in New York has had one since the last century, for instance, and nowadays most decent-sized US towns have one open or under development. France has the successful Inventorium children's museum near Paris and Venezuela has the thriving Museo de los Ninos in Caracas.

In the past five years or so several British museums have at last cottoned on to this successful combination of fun, education and business and they have designed or re-designed sections specifically for children's enjoyment. Such as the LaunchPad at the Science museum in London, for instance, the Exploratory in Bristol or, most impressively of all, the purpose-built Eureka! Museum for Children in Halifax.

interconnected telephones you can talk on.

Next door to the TV studio is the 'Music Box' with a collection of Dean Friedman's interactive electronic instruments, such as the 'Boing-D-Boing' and the 'Tone Stones' - stepping stones which light up and make a sound when you step on them.

Then, lastly, but probably best, there is the 'Dreams' exhibit, in the bedroom of the house in the 'Living and Working Together' section. This explores the nature and power of dreams, both good and bad. There are several parts to it, including a dark mirror-walled tunnel which makes it seem you're

bounce up off your hands. The illusion of virtual reality is surprisingly quite powerful.

Despite the fact that the graphics are simple and you know you are just watching a monitor, there's an instinctive identification with your image on screen - a sense that it's 'you', much more powerful than with a joystick or mouse-controlled figure.

AirPaint

In the special theatre downstairs there is a more powerful version of InVideo connected to an A3000, with a video projector



See your body in motion with the moving skeleton.

standing in the middle of a void and a monster that eats your bad dreams which you write down and feed it. But the centrepiece is Dean Friedman's InVideo installation: 'Dean's Dreams'.

Dean's Amiga Dreams

'Dean's Dreams' consists of a video camera, a TV screen and a hidden Amiga 2500. You stand against a white wall and your image (albeit in one-bit colour in this version) comes up on a large TV screen. Then, to a guiding voice-over by Dean Friedman, you see yourself superimposed on a series of backgrounds. Sky, for instance, with fluffy clouds zipping by. And balloons floating up which you can pop with your fingers, making a satisfying bang.

You can be under the sea with fish and crabs swimming by, that wriggle or dart away when you touch them, or in a rainstorm with cats and dogs dropping down that

instead of a monitor. This projects your image in full colour and as well as 'Dreams', also features 'AirPaint' - which lets you dip your hand in an on-screen ink-well and paint by moving your hand around. Or alternatively you can paint with your whole body by leaving a trail of your image in a chosen colour on screen. And there are also several educational games you can play with numbers, letters and shapes, turning the letter A into an Apple by touching it for instance. Because there are no moving parts and it's all done with light and video - with the computer safely tucked away - there is very little chance of it ever being damaged by over-boisterous use. The Amiga-based system is undoubtedly one of the most innovative and imaginative exhibits at the museum.

SoundBeams

In a similar vein of non-contact interactivity, Eureka! also uses four Soundbeams in the theatre. These are small boxes which pro-

Starring...

AMIGA!

To anyone who regularly watches the Big Break fast on Channel Four, Dean Friedman recently became a household name as a popstar. Co-presenter, Gaby Roslin confessed on the show last year that she had always had a soft spot for the American singer since his one UK-hit song 'Lucky Stars' hit the charts in 1978. Soon dozens of other Friedman fans started coming out of the closet and writing in to the show to express their feelings for him. Eventually Dean himself got wind of the clamour for a comeback. In answer to this, for once genuine "public demand" Dean Friedman recently flew over from America, to play a duet of 'Lucky Stars' with Gaby on the show and perform a series of successful concerts in London.

So what's that got to do with the Amiga users of the world? Since his '78 hit, Friedman's interests have branched out from pop music to embrace multimedia. In the late eighties he developed one of the most innovative and successful interactive virtual reality systems in the world: InVideo, based on an Amiga with a customised video digitising board and a video camera.

Now installed in children's museums and various public entertainment venues in the US and around the world, the InVideo system is one of the showpieces of the Eureka! Children's museum in Halifax in Yorkshire, and the Amiga-based system may soon be commissioned by the Science Museum in London, too.

As a sideline Friedman's company make a set of bizarre interactive musical instruments for children, also installed in chil-

dren's museums and similar places. These 'Musical Atrium' instruments range from the HonkBlatt, a set of stools which sound huge trumpets when you sit down on them, to the Light Harp, a harp with light beams instead of strings.

How old are you?

'Thirty-nine, rapidly approaching forty in a couple of weeks.'

Where are you normally based nowadays?

'I live and work in Peekskill, New York, that's about an hour north of New York City, right on the Hudson river.'

What's your main occupation now?

'I'm a multimedia maniac. And I say that because I definitely more and more see myself as a multimedia man. Because my day and interests run the gamut, from programming software, to animating our InVideo games or interactive applications, to producing video material for use in those environments, to fabricating and sculpting the housings and the shapes for our Musical



Left: Dean Friedman, likes to keep well-informed about the Amiga. Right: Hey, we're on telly.

Atrium instruments, to doing the music and the soundtracks for games or for TV or film, or to coming over here to get up on stage and play in London. So multimedia sums it all up - it's

Interactivity CONTINUED

ject invisible ultrasonic beams across a space and can detect when and at what distance the beam is broken very precisely. They convert this information into a MIDI signal which can then be processed by a synthesiser or computer to trigger any number of sounds or effects. So you can play a tune by moving your hand about in the air, for example, or by dancing through various beams.



The giant Music Box.



Bang goes that dream.
Below: An abstract work in AirPaint.



The latest project Leon is involved in is a 'Virtual Treasure Hunt', where several beams are finely focussed onto a set region of space in a room - say, a football-sized space at head height - and the game is to find the space by moving around.

Phase 2 of Eureka's expansion will involve converting a similar-

sized derelict train shed next door into a museum for slightly older children, teenagers and adults and will probably involve even more computer-based technology. The Amiga, if

nothing else is an innately enjoyable, hands-on computer. It is ideal for the interactive, multimedia applications for which it is being used for at Eureka! and other similar places of entertainment - sorry, museums - around the world.

Visiting

The soundbeams and A3000 InVideo system in the theatre are available only on certain days. If you are planning to visit Eureka! especially for these, telephone 01422 330069 beforehand to confirm when they will be running.

INFO

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01426 983191.

audio, it's video, it's software, all kinds of media production. The trick is trying to find the time to do all that.'

From a background as a successful musician, how did you come to be interested in multimedia?

'Well, it was via synthesisers. I saw some early demonstrations of the Synclavier in the early eighties, and this was pre-MIDI, before MIDI impacted on recording and music production in eighty-three. And I was really blown away by its power, and so spent time becoming versed on this system. And then I was asked to author what became the first consumer guide to synthesisers, 'The Complete Guide to Synthesizers, Sequencers and Drum Machines', published by Music Sales.

Fortuitously it was written in eighty-three, which was just as all these things came on line, just as MIDI hit the streets, as well as the classic synths like the DX-7 and the first synthesisers to incorporate MIDI and drum machines, and some of the early sequencers. So I got in on the ground floor as it was all evolving. And over time I started doing a lot of reviewing and writing, and wrote another best-selling synthesiser text-book called 'Synthesiser Basics' that was used by universities around the world.'

'And then I woke up one day realising that I was computer-literate without ever owning a computer when it finally dawned on me that all a synthesiser was was a computer hidden inside a keyboard. That all the logic and programming was identical, just that it didn't have an alpha-numeric keyboard. And so I went out to get a computer to do music sequencing on.

'This was early on in the game so it was sort of a toss-up between the IBM, the Mac, the Atari and the Amiga. To me they were all more or less on an equal footing, and frankly I didn't like the keyboards on the other machines. The only reason I bought an Amiga was because I liked the keyboard, the feel of it.

So I brought it home and I was just amazed and blown away to discover that it was this powerful, incredible graphics machine - with audio too. This was eighty-five, so

I got one of the first A1000s, and just became a die-hard Amiga maniac from that point on.

At the time I was doing soundtrack work for the Central TV series 'Boon' and the occasional low-budget horror-flick, and reviewing software. Then using some off-the-shelf package on the Amiga I designed the first virtual reality kids' game for TV called 'Eat-a-bug' for Nickelodeon [the number one cable children's channel in the States] and it was a big hit, and that's really what started it off.

'We started doing these virtual reality Amiga-based games and games systems for leading children's museums and science museums, arcades, theme parks and television around the world. We call it InVideo because we put people inside a video game, it's a camera-based form of VR. And we've done it for Walt Disney World down in Florida, for BlockBusters, Golf-and-Games, Nickelodeon TV, Fuji Television and major museums around the world. We're just doing more and more of it, it really exploded.

'At the same time because of my background in music on a parallel track we started developing interactive music exhibits and attractions for the same markets - for museums and arcades - and we've been shipping Boobles and HonkBlatts and Boing-D-Boings and Tone Stones all over the world as well.'



Anyone want to be on BeeWatch...?

What's the connection between InVideo and Mandala?

Mandala is a similar technology. When I first started out, I wrote one of the first articles about Mandala and used it to do my first few projects. But then, working with programmers in California and New York, we developed an in-house authoring system that we believe to be...uhh...you know...

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Superior?

Yeah...well...you know...that doesn't even need to be said. It's a similar technology, so it's comparable. But we don't use Mandala any longer.'

The InVideo system uses a video camera and an Amiga, what other hardware is involved?

There's a live video digitising board that takes the video camera input and then enables the Amiga to track the silhouette of the player. So we're using edge collision

motion. The result is that it offers the opportunity to play very physically challenging and aerobic games, and lends itself perfectly to sports simulations.

Like volleyball. Our virtual volleyball game has up to six to eight people at a time - four on a side - playing volleyball against each other in a virtual world. On a virtual beach with a virtual net, and a virtual ball. It's great fun and it's participatory. And over other forms of VR - helmet-based or cabin-based, for instance - it offers a lot of benefits. It's safe, hygienic, com-

So the software that we're developing and the lessons that we're learning about ergonomics and interpreting human gesture and human behaviour and body movement and the ways in which the software responds to that behaviour - those are lessons that are just scratching the surface in terms of what those smart video-phones or set-top boxes will be able to do in the not too distant future. So ultimately we envision being able to deliver our content down the Internet along with everybody else. So that people

computer experience the opportunity to have the kind of fun that computer experts have with computers by just simplifying the interface and giving them the access to all that kind of exciting power.'

How would you like to see your work with In Video develop?

'We continue to make inroads in major entertainment venues around the world and it continues to prove itself to be a compelling and successful attraction: people love it. There is still a learning curve that we have to walk the public through to educate them as to the broad definition of virtual reality. Because there are a lot of people who still think that VR is just a helmet-based system. Of course, as soon as they play InVideo they realise that clearly InVideo is a powerful form of VR with a lot of advantages over the helmet. And so that's a process that's ongoing, and the media is starting to understand that and acknowledge it; and the venues that are incorporating our systems into their complexes are fully appreciating that. So we just continue in that direction.

Ultimately our goal is to establish an installed user-base of tens of thousands of installed systems and then concentrate rather than being hardware manufacturers, on the content, the software. Because we ultimately see ourselves as being interactive film-makers. And I think the future of virtual reality is essentially that: the production of interactive film and interactive entertainments and interactive media. What we're doing now in InVideo are preliminary steps towards that goal.'

So with Dean Friedman's InVideo system, we may yet see an Amiga in the Science Museum, as something more than just an exhibit in the History of Computers section. **AUI**



From left to right: Yummy, a nice juicy gnat, but look out for that killer bee! Eat-a-bug. The Booble: Toot! Zing! Honk! Whistle! Quack! Honk, Honk, Honk, Honk, Honk, Honk, Honk, Honk: Smoooooke on the Waaater - a Boing-D-Boing.

detection and object collision detection to enable a person to reach up and grab an object and have the software recognise that that collision has occurred.'

It's used not only in entertainment but also in business presentations and the like. I think that it's most important, non-entertainment applications though are going to be in the health field and the fitness field. We get a lot of inquiries from paediatric hospitals and re-habilitation centres because InVideo represents a non-encumbered, unobtrusive way of communicating with a system. And it also promotes and motivates physical movement and gesture. So if someone needs to increase the range of motion in their arm or needs to exercise to be able to lift their arm higher,

InVideo offers a diagnostic and rehabilitative tool that doesn't require an attendant, or a helmet, or any peripherals and is innately fun and compelling, particularly for kids. Not just for kids, adults as well. It offers a rehabilitative tool that I think has a lot of promise for the medical field.

And then there's the whole fitness community. It's very aerobic - we did a virtual volleyball game that's touring the country. We've reproduced it several times for the Museum of Science in Boston, the Museum of Science and Industry in Chicago and the Museum of Science and Discovery in Fort Lauderdale, Florida. The nature of the interface, because it's unencumbered, gives you freedom of movement and free range of

portable, it offers ease-of-access and maximum throughput.

You can't put a helmet on a five-year old kid. With InVideo, even a three year old child can walk in, unattended, to play a game and have a great time. That's why InVideo is finding its way into the kinds of public venues where helmet-based systems have a place, but just can't match InVideo in terms of ease of use, comfort and multiple access. All those attributes are what make it a powerful form of not just entertainment but an interactive media tool.'

To use the InVideo system what sort of system do you need?

'Well, at the moment we don't sell developer's kits so we don't view it at a consumer product...'

Any chance of a consumer-aimed product?

'Well, absolutely. Essentially one way to look at InVideo is simply as a system that refines the eyes of a computer, because all it is, is a video camera attached to a microprocessor, with algorithms for interpreting what the camera sees. And it doesn't take a lot of imagination to realise that at some point in the near future, every video phone in every home on the planet will incorporate a video camera attached to a PC [Friedman uses the term in the biblical sense of personal computer]. That being the case, those will all be miniature InVideo systems.

can play InVideo games in their homes.'

Are there any plans to incorporate 3D techniques in InVideo?

'Oh sure, we always have an eye on those sort of techniques and imaging processes and that will clearly be in InVideo's future. Everyone - even the helmet-based VR manufacturers, if you press them - will acknowledge that our common goal is the Holodeck on the USS Enterprise. Where you walk into a space and it becomes a virtual reality, without having to don a helmet, or gloves or glasses - you become immersed. If that means that imaging devices and imaging systems have to mature to the point where we have immersive digital holographic display systems then that will be part of the evolutionary path of InVideo.'

Are there any other kinds of interactive interfaces around at the moment which you are interested in developing?

The Music Atrium instruments represent a whole array of different kinds of interactive applications and we're working with museums all over the world designing different types of play and learning experiences. I'm here this week in meetings with the Science Museum of London, and we just designed an interactive music band-in-the-box kiosk which provides a friendly user interface for a very complex and powerful music random pattern generator. So I'm interested in offering people who might not necessarily have a lot of

INFO

For more information about InVideo and Dean Friedman's other multimedia activities, you can contact him at:

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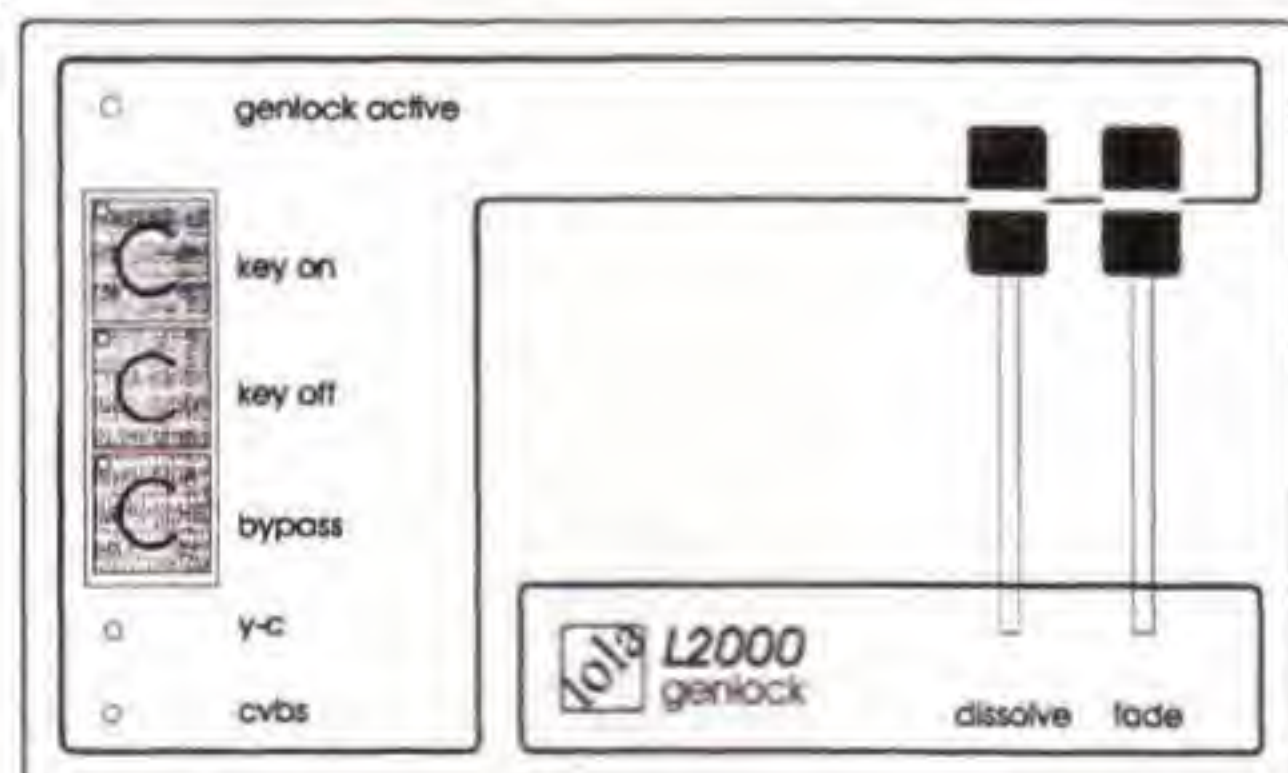
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Mastering Amiga Programming Secrets

Edmund Dumbill reviews a key book on Amiga programming by none other than AUI's programming guru, Paul Overaa.

Paul Overaa has an excellent and well deserved reputation in the area of Amiga programming, - and a small army of followers gained through the pages of AUI. This book does nothing to damage his high renown nor is it likely in any way to disappoint his loyal readership. "Mastering Amiga Programming Secrets" is a book for programmers with some experience, that will provide insight, encouragement, ideas and information in many areas of programming the Amiga; and furthermore about the art of programming itself. For this book to be of use to you, you will need to know C well, have a reasonable knowledge of programming with the Amiga's OS, and a smattering of assembly language too would not go amiss. The book covers AmigaOS version 2 onwards (although some code works with 1.3).

Personal

The book is quite personal to Paul Overaa, explaining some of his favourite areas and techniques; if you have ever wanted to get inside a programmer's head then this book is for you! If you've not developed your own techniques, then Paul Overaa's certainly form a good starting point. If you have, then there are still plenty of good ideas to improve your coding skills.

Areas covered by the book include MIDI (quite a favourite of Paul Overaa's, although even if you're not a MIDI person there's plenty here about serial communi-

cation and using the Amiga's device drivers), interrupt handlers, interprocess communication, graphics techniques and bootblocks. Quite a mixed bag, and representative of the book; a collection of 'secrets' and tips rather than an exhaustive manual.

I was glad to find that Paul Overaa includes a considerable amount of material on program design, which is not really Amiga-specific but is very helpful; including the introduction of the concept of Abstract Data Types (ADTs) and Warnier design diagrams. There have been many times when I've seen programs that say they do useful things ruined by poor design and bugs. These days when Shareware/ PD is plentiful, a program that is awkward to use or buggy does not stay long in anyone's collection. It's an important thing for Amiga programmers to be just as concerned about design as other programmers.

Example Code

The book is packed full of example code, although sending off for the companion disks (only #4) would be a good idea if you want to run the programs developed in the book, rather than just using it as a 'cookbook'. There is,

however, an occasional error in the listings in the book. One I spotted was a double hyphen printed as a dash (p.55 for anyone interested!), but an experienced programmer would have no problem sorting out this, probably proofreading, error.

To tackle the nitty-gritty issue, who would want to buy this book, and why would they want to buy it? Well, "Mastering Amiga Programming Secrets" is not a replacement for reference manuals or the Native Developer's Upgrade Kit, but it is an ideal companion. It leads you more gently through specific subjects, and you can use reference manuals for further investigation. Having the Includes, Autodocs, etc. around would be very useful in conjunction with this book. If you're a seasoned programmer, then you will probably know most of the

Amiga specifics in this book, as it says little more than the reference manuals do, but some of the MIDI details and program design methodology may be of interest. Likewise, the book may be a little advanced for a beginner programmer with little patience. For most programmers however, "Mastering Amiga Programming Secrets" would prove a good introduction to many areas, and thereafter an excellent guide for your own programs. It is certainly one of the best non-reference books on pro-

gramming the Amiga that I have ever seen. If I had had this book when I started out programming the Amiga, it would have saved many hours of head-scratching and machine-crashing. I like the fact that the book is really mixed; there's something for everyone, and plenty of "So that's how you do it!" parts (copper bars come to mind here).

Have I any gripes? Very few. The book is written in the first person and is very chatty - not what you would expect for such a book, but if you don't care about literary style then it doesn't matter. Occasionally Paul Overaa here is a little long-winded, but who wouldn't be about the machine they love? Certainly no-one could accuse the book of being dull or dry.

Conclusion

If your Amiga has a coffee-table, put this book on it! It will always be worth dipping into, and it may yield just the thing you want to do. Congratulations to Paul Overaa and Bruce Smith Books for still supporting the Amiga and producing quality material on programming. **AUI**

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PROGRAMMING TIPS

Paul Overaa provides those all important details for defining structure based local data storage.

To write reentrant code you need to eliminate all global variables whose values might change on re-execution. This usually means setting up 'instance specific' variable storage. The most common way of doing this is to define the variable set that is to be used as a 'structure' and then have the program allocate the appropriate variable space on the stack using the 680x0 Link instruction. The idea here is that it then becomes possible to access individual variables using offset values that have been produced using the structure-orientated Amiga include file macros STRUCTURE, STRUCT, UWORD, ULONG and so on.

Unfortunately there is a snag connected with using the frame pointer mechanism in the conventional 680x0 way when you are dealing with Amiga-style structure access and it's easy to see how the problem arises by looking at an example. Let's suppose we define the following structure to hold the local data for a program:

```
STRUCTURE LocalData,0
UWORD Id_data1
ULONG Id_data2
LABEL LocalData_SIZEOF
```

This definition produces structure offsets of 0 and +2 respectively and Figure 1 shows how these offsets effectively represent the two field positions in memory.

There are two important things to notice at this point. Firstly, the offsets produced by the include file structure macros are positive values. Secondly, they are designed to work in conjunction with a low memory base address. The generated offsets, when used in the normal fashion, work fine but if, however, we try to use such structure definitions to access variables stored on the stack via the frame pointer register we immediately run into trouble. If, for example, we tried to store anything in the local data area generated by a Link instruction using these zero or positive offsets we would overwrite existing stack data (the stack memory outside of the area which the Link instruction would have provided for us).

You might, at first, be tempted to think that the solution is to use the generated offset values in their negative form. If, however, you experiment with the two offset values generated by the example structure you'll find that adopting a blanket approach of making all the generated structure offsets negative doesn't actually help. Trying to copy the Id_data1 field (which has a zero offset value) into d0 using the instruction... move.l -Id_data1(a3),d0 for example would still clearly fail to have the required effect.

The trick is to alter the register being used as the frame pointer so that it points to the bottom, rather than the top, of the local stack data memory area. This produces a situation whereby the frame pointer then acts as the base of the local data storage allowing access to local data items held on the stack to be made in exactly the same way as conventional Amiga structure field access, ie via include file macro generated structure offsets.

If, for example, we were using a local data area defined by the structure described earlier the 'bare bones' code for adjusting the frame pointer would look something like this:

```
link a3,#-LocalData_SIZEOF create space for local data
lea -LocalData_SIZEOF(a3),a3 adjust frame pointer
```

There's one other twist that needs to be mentioned here - you need to remember that any frame pointer modification of this sort has to be undone before the program or routine terminates. This is because the 680x0 Unlk instruction, used to reset the stack to the condition it had prior to the Link instruction being executed, makes use of the contents of the frame pointer register and expects it to be unchanged, still pointing to the top of the stack frame. The easiest way of ensuring this is to copy the original contents of the frame pointer register at the same time that you preserve any of the other registers that are going to be used so in practice the start of the routine would tend to look like this:

```
link a3,#-LocalData_SIZEOF create space for local data
```

```
movem.l a2-a6,-(a7) preserve registers
lea -LocalData_SIZEOF(a3),a3 adjust frame pointer
```

This type of entry code allows the normal type of routine termination to reset the frame pointer to the correct value needed for the unlinking operation:

```
movem.l (a7)+,a2-a6
unlk a3
```

To finish, Listing 1 shows an example of this sort of structure-orientated reentrant code that illustrates the general style used. The routine incidentally comes from an ARexx function library module based on the use of this extended library structure:

```
STRUCT MyLibBase,LIB_SIZE
ULONG mlb_AsiBase
ULONG mlb_DOSBase
ULONG mlb_ExecBase
ULONG mlb_SegList
LABEL mlb_SIZEOF
```

coupled to a local data set that has been created using this structure definition:

```
STRUCTURE LocalData,0
ULONG Id_FileRequest
STRUCT Id_Buffer,BUFFER_SIZEOF
STRUCT Id_FStack,FSTACK_SIZEOF
LABEL LocalData_SIZEOF
```

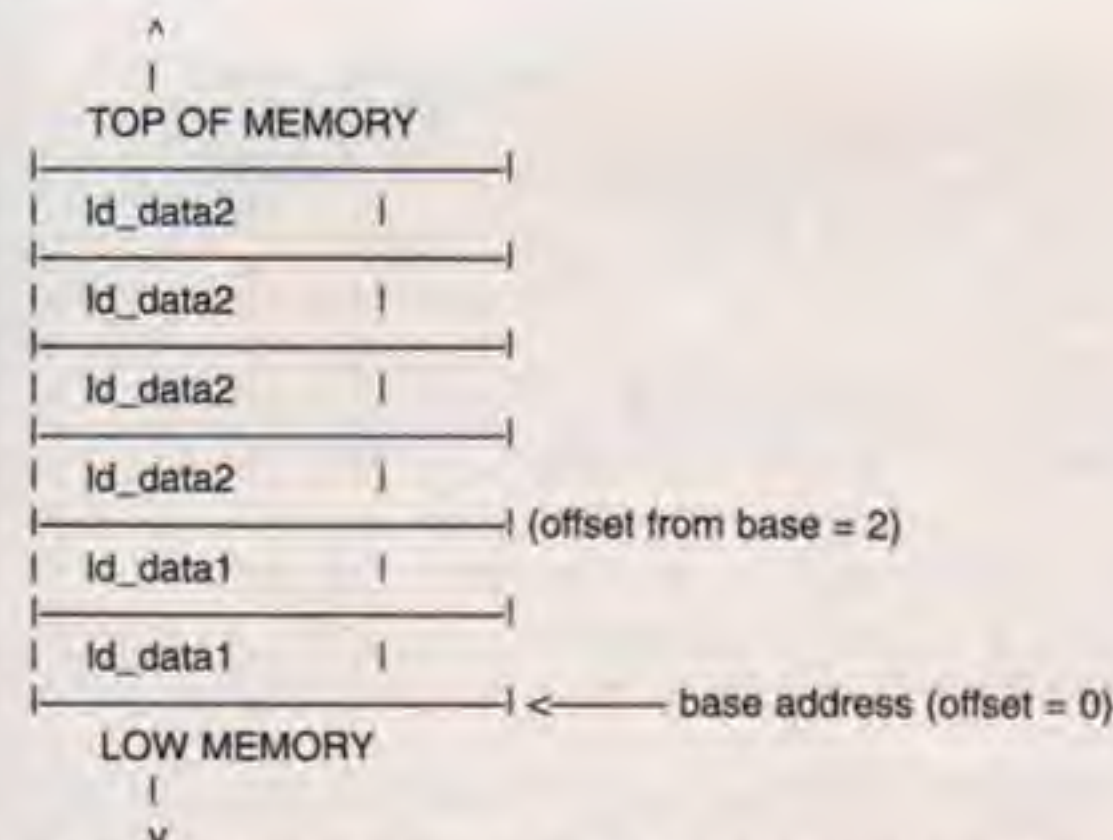


Figure 1: A conventional example structure as it would be stored in memory.

<pre>query link a3,#-LocalData_SIZEOF movem.l a2-a6,-(a7) .setup_fstack move.l a3,a2 top of my fstack move.l #NULL,-(a2) push fstack top identifier lea -LocalData_SIZEOF(a3),a3 frame pointer to bottom jsr AllocFileReq beq.s .error_exit movea.l mlb_AsiBase(a5),a6 move.w #NULL,a1 no tag changes movea.l Id_FileRequest(a3),a0 JSRLIB_AsiRequest jsr BuildFileName movea.l a4,a6 ARexx sys lib base lea Id_Buffer(a3),a0 local buffer start jsr _LVOSTrlen(a6) jsr _LVOCreatArgstring(a6) move.l d0,a1 needed in a1 for ARexx beq.s .error bra .normal_exit</pre>	<pre>.deallocate move.l (a2)+,d0 retrieve function pointer beq.s .normal_exit move.l d0,a0 jsr (a0) execute routine! bra.s .deallocate .normal_exit moveq #RC_OK,d0 movem.l (a7)+,a2-a6 unlk a3 rts .error move.l (a2)+,d0 retrieve function pointer beq.s .error_exit move.l d0,a0 jsr (a0) execute routine! bra.s .error .error_exit moveq #ERR10_001,d0 movem.l (a7)+,a2-a6 unlk a3 rts</pre>
---	--

Listing 1 - Some example reentrant code.

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ARexx Info

This month Paul Overaa explains some of the more esoteric memory related ARexx functions.

Being a high-level language ARexx, most of the time, automatically takes care of any memory allocations required by particular function calls. There are, however, a number of ways explicitly to allocate areas of memory and these are often useful to the more advanced ARexx coder. You may, for example, want to set up a buffer area at a known address and one way of doing this would be to use the built-in GetSpace() function like this:

```
mem_p=GetSpace(blocksize)
```

With this call blocksize is the size of the memory area you want allocated and mem_p is its returned address. ARexx releases this memory automatically when the script terminates and so, strictly speaking, it is not necessary for a script explicitly to release memory acquired in this way. Nevertheless, relying on ARexx to do all cleaning up operations is a bad thing since it encourages programmers to get into habits that will lead to trouble with other languages such as C. So I employ ARexx's FreeSpace() function to return the memory after use.

```
n=FreeSpace(mem_p,blocksize)
```

The AllocMem() and FreeMem() Functions

Occasionally more control over the memory allocation might be needed and a typical case would be the specific allocation of chip memory. In these cases, it is necessary to use an alternative approach. Two functions, AllocMem() and FreeMem(), are provided as part of the ARexx rexsupport library and the first of these provides control over the type of memory being allocated via a variety of flag values based on those used with the underlying Exec library memory allocation functions.

A flag, in case you've not come across the term before, is simply a bit present in a variable which has been assigned some specific meaning. Flags represent a compact way of storing true/false type indicators and, since they require just a single bit of storage space, a longword (four bytes) can therefore act as a store for up to 32 different flag values. By convention if a flag bit has the value 1, then it is said to be set (or 'true'), and if the bit has the value 0 it is said to be clear (or false).

The binary bit positions of the most common memory attribute flags used with the AllocMem() function are these:

```
MEMF_PUBLIC 0000 0000 0000 0000 0000
0000 0000 0001
MEMF_CHIP 0000 0000 0000 0000 0000 0000
0000 0010
MEMF_FAST 0000 0000 0000 0000 0000 0000
0000 0100
MEMF_CLEAR 0000 0000 0000 0001 0000
0000 0000 0000
```

You can use the equivalent numeric values directly. For example, to allocate and zero a particular memory block you could just add the appropriate memory type and memory clear flags together to get a flag value to use in your function call. Embedding 'magic numbers' in the way is however normally regarded as bad practice and so most programmers prefer instead to define pseudo constants, ie fixed variables, that act as constant values but that have relatively understandable names.

In my scripts I use C-style uppercase conventions for flag values and so I'd define the memory flags using this type of scheme:

```
MEMF_PUBLIC = '00000001'x
MEMF_CHIP = '00000002'x
MEMF_FAST = '00000004'x
MEMF_CLEAR = '00010000'x
```

With these definitions in place we're then able to use the ARexx BitOr() function to combine flag values via expressions such as BitOr(MEMF_CLEAR, MEMF_CHIP). This approach allows code to be written in a way which makes it very clear which flags are being set! The following call, for example, leaves you in no doubt that 2000 bytes of cleared chip memory are being allocated:

```
mem_p=AllocMem(2000, BitOr(MEMF_CLEAR,
MEMF_CHIP))
```

With AllocMem(), unlike GetSpace(), it is very definitely the responsibility of the programmer to return memory after use. This is done using another rexsupport library function called FreeMem(). To release the memory obtained with the previous AllocMem() code fragment we would use this statement:

```
call FreeMem(mem_p, 2000)
```

FreeMem() incidentally cannot be used to return memory allocated using the higher-level GetSpace() function mentioned earlier.

Using The Support library

Don't forget that in order to use the AllocMem() and FreeMem() functions the rexsupport library needs to be accessible to ARexx and this means adding it to the ARexx library list. The easiest way of doing this is to use the AddLib() function in your scripts and since it is normally best to check whether a library is in the library list or not before adding it the code for doing this would be written like this:

```
if~Show('L',rexsupport.library)
then do
call AddLib('rexsupport.library',0,-30,0)
end
```

From that point on AllocMem(), FreeMem(), and all of the other functions of the rexsupport library would be available to your script and if you take a look at the skeleton code in Listing 1 you'll see how the various code fragments discussed this month fit together!

/ Some example code */*

```
MEMF_PUBLIC = '00000001'x
MEMF_CHIP = '00000002'x
MEMF_FAST = '00000004'x
MEMF_CLEAR = '00010000'x

/* First make sure rexsupport library is available... */

if~Show('L',rexsupport.library)
then do
call AddLib('rexsupport.library',0,-30,0)
end

/* allocate some cleared chip memory... */

mem_p=AllocMem(2000, BitOr(MEMF_CLEAR,
MEMF_CHIP))

/* here would come the bulk of your script! */

call FreeMem(mem_p,2000) /* hand memory
back before terminating */
```

Listing 1: A short example of the use of the AllocMem() and FreeMem() functions.

Sound File

I still manage to be stunned by the quality and creativity of music achieved on Amiga-based sound trackers. My preference is to use the Amiga as the sequencing heart of a MIDI studio, since I find module-making restrictive. Other musicians clearly find very few restrictions, and are pushing the boundaries of what is possible using just the Amiga and four sound channels.

This month's hit list includes some brilliant music modules as well as music created by getting an Amiga to control the performance of external electronic instruments. Both ways still come up with impress and immensely listenable music.

Paradise Decay

Don't ya just love those mysterious disks that come through the mail with no letter or text file - just music that packs a punch. Paradise Decay hail from Nottinghamshire and have been

Mark Blackham gives his professional appraisal on a choice selection of music created by Amiga musicians.

wowing the Amiga PD scene for a while now. The experience tells in this compilation of material.

The selection of songs are predominantly techno-orientated, and stick to a familiar music-module formula of bass action supplemented by key "chorus" segments and string-it-along middle bits.

There are some exceptionally notable facets to the music of Paradise Decay.

The first is an array of clear, crisp and new samples which ensure the songs have a unique sound of their own.

Astute and varied timing with samples, even on the traditional 4/4 beat, also gives the music an extra edge. A factor in the success of the songs is the intelligent application of samples - not over-using drop samples, and often placing

them behind the main music so they accent parts, not wipe them out. The skill of sample placement often takes some learning - Paradise Decay have it well mastered. Even a sample like the opening BONG from the ancient but excellent Interceptor game is incorporated ingeniously into a song.

Bass Slave is near to perfect alternative dance pop as you're going to get - for God's sake, many people can't achieve this in their million pound studios. The use of the over-killed "This should be played at high volume" sample was a mistake, but it's immediately rectified by the subsequent deep grove.

Forest Fire is an expertly crafted piece of soundtrack - taking you from its deep rainforest open-

ing to its violence infested climax in an engrossing manner. Fantastic.

Cop This is a great example of combining the right vocal drop samples with stylish and tightly funky music.

The music on Paradise Decay is at times exceptionally professional. Some of it, like Forest Fire, could be lifted straight into movie or television soundtracks. Much of it could form the basis of a demo tape for a music label.

It's very clear that Paradise Decay are more than ready to step into the next level of music creation - going the full hog into proper MIDI studio music creation. They have the imagination and talent to go very far. **AUI**

INFO

Contact:
Paradise Decay, 31 Lindley St.,
Mansfield,
Notts,
NG18 1QE.



Reflections

Paradise Decay - masters of the skill of sample placement.

From QDos to Kudos

Opening Windows on the Future?

Antony Jacobson offers a personal view of the biggest product launch that the world has ever seen.

Bill Gates is the richest man on earth, Microsoft are going to dominate the future of computing. Windows 95 is the biggest confidence trick the world has ever seen. Which of these statements, if any, is true?

The first, in spite of the recent carefully promoted news stories, is

little consequence to anyone but him and his bank manager. That is unless you, as some of us do, object to his being able to use his obscene wealth to buy up the computer rights to the pictures of the National Gallery, which he has done for his own personal use in his \$35 million house.

That Microsoft are going to be



The most successful launch of any commercial product.

certainly not correct - the Sultan of Brunei, among others, makes Billy boy look poor. The second may be doubtful, as I will explain. But the third could very well be true, and may cost us, especially Amiga users, very dearly indeed.

Whether Microsoft's 39 year old founder and leader really has more billions than anyone else is of very

to computing what petrol has been to the combustion engine is another matter altogether. By a combination of skill, foresight, ruthlessness, and luck, the Seattle-based company has taken itself, with MS-DOS and Windows, and derivatives thereof, into a position to be able to sell 80% of the commercial productivity software that the PC

Help!

Windows 95 is installed from 12 floppy disks or a single CD-Rom. Changes have been made to the main Windows 3.1 screen with a clean and simple desktop with program icons to the left, a new start button in the lower left corner and a task bar along the bottom which allows the user to switch between applications quickly and is probably the key to the whole system.

Microsoft has designed Windows 95 to build on whatever user friendly DOS commands there were in the 3.1 version, by making the system more intuitive with the addition and easier configuration of new hardware devices such as a CD-Rom drive.

Windows 95 searches new hardware automatically, loads the right software drivers, sets technical parameters and tells other applications about the existence of the new device without intervention by the user; Plug 'n Play is the phrase coined for this. With its advantage of compatibility with most of its peripherals, the Amiga went down this route years ago.

Windows 95 also includes improved multimedia support. Previously unknown peripherals such as printers which are compatible with the plug and play standard should now automatically work immediately they are installed.

Nevertheless, with the range of hardware devices and software available for PCs, it seems inevitable that compatibility problems will be an important problem for Windows 95 users and a major cause of help desk calls. Microsoft plans to quadruple the number of technicians answering telephone calls in the US, UK and other countries to 2,000 by contracting with other companies to share the load. The first call for help is free but after that it could cost as much as £199 for later support.

In the UK some 500 support staff from companies with usefully computing-oriented names like Telemarketing will be dealing the the cries for help. But remember, the free telephone support only lasts 90 days, after that it's question of paying for it.

computing world has found itself required, almost forced, buy.

Certainly, for anyone that's no mean achievement.

However, it has been estimated that computing power is doubling every 18 months and will continue to do so or even more for at least the next 30 years. No-one, not even whizzkids like Gates who started Microsoft when he was 19, can even get close to predicting what changes that exponential growth is going to bring.

When we in **AUI**, alone among Amiga and even PC magazines, suggested less than three years ago that the cost of memory was going to descend below 50p a megabyte, some people regarded the idea as ridiculous. But the price today, if you look in the advertisements in this **AUI**, is down below 30p a megabyte and still falling.

That speed of change applies to nearly every sector of computing.

There are two, however, to which it doesn't. The Amiga, unfortunately, for obvious reasons, is one and the other is the now antiquated architecture of the IBM-compatible PC. The latter may well contain the basis for Microsoft's continuing dominance or more likely the seeds of its downfall.

The limitations of Windows 95 are not just that it is a tardy and not particularly technically successful attempt to move the IBM-compatible PC up to the ease of operation of the Mac or the Amiga but are contained within the structure of the PC itself. The chips on which PCs run, the x86 series which includes the Pentium, the forthcoming P6 and even the rumoured P7, are now fast and getting faster but they have not changed radical-



Oh happy days! With Windows 95 I can afford a new holeless sweater!

ly in the way they operate from the old AT days. They are not RISC-based which makes them neither cheap to produce nor offering scope for great improvement. A vice-president of Intel recently told me, with considerable bravura, that Intel's CISC chips now crowded so much on them that they could do anything of which RISC chips were capable. It seemed to me that statement was made with more hope than technical exactitude.

This matter of the CISC chips,

and the rest of compatibility-ridden hardware restrictions of PCs, stops Microsoft, even if it could, creating software fundamentally new and different that might really move it, Microsoft, and the PC too, to take the next technological leap that the increase in computing power will not just bring but will forcefully demand.

Where will that leap take us? Who knows? No-one, including Bill Gates, can even guess. But it is by no means sure that Microsoft will be the company that comes up with the answer. If using all that growing computing power available to us, someone else creates a convincing new way of making computers work, Microsoft, its myth, its power and its stock market share price could be destroyed within a few weeks.

Impossible? Look at the fall that IBM took in the late eighties and early nineties. Whatever happened to Singer sewing machines? The British-owned car industry. The British Empire. Or Communism. Change always has among its victims those who previously appeared invulnerable. Especially technological change.

It's just software... It doesn't cure cancer. It doesn't grow hair. It's not floor wax. It's Windows...

Brad Silverberg,
Head of Development,
Windows 95



The Next Gates?

Marc Andreessen of Netscape was the man who made the Internet accessible. With Mosaic, a "browser" - a program that lets users move easily through the myriad of stuff on the Internet - he has both created a market for the online world and made himself a fortune.

24 years old, Andreessen, a typical Silicon Valley all hours programmer, has earned himself a £40 million bank balance since launching his company Netscape recently.

While Bill Gates' software comes preloaded now on a vast number of computers, most observers are beginning to think that the next stage in the technodevelopment markets is through the SuperHighway - online. That's where Andreessen's products are aimed and they are becoming, like Windows, increasingly an automatic bundling goodie with PCs.

Can the young lion take on the might of Microsoft, some sharp observers are saying that he can. Are we seeing with Netscape and Andreessen, the emergence of the next Microsoft and the new Bill Gates? Don't bet against it. This is computing. Anything is possible.

Sharpening the Saw

In addition to the heart of their attempt to take over the world with Windows 95, Microsoft are bringing out other programs to take advantage of 32 bit operation - well, really 16 bit operating and 32 bit functionality - and other "improvements" offered by the system. One of those programs is Office 95 which, in its earlier version for Windows 3.1, gained by far the largest share of the office suite

of programs market. Office gave Microsoft, in addition to its operating system dominance, exploitation of that other extremely profitable area, applications running on PCs.

Office has all the usual products of a suite of programs: WP, Database etc. However, included with Office 95 is also Schedule+ a "personal information manager", PIM. A PIM is a program that keeps track of appointments,

things you want or have to do, phone numbers, addresses and other personal information. Organiser is a similar program on the Amiga.

The earlier version of Schedule didn't make much of an impact so a couple of features have been added that may or may not make you into the person you always believed you could be but dreaded the effort it would take to get you there.

First is the "mission statement". Mission Statements are the trendy

stick-up-on-the-wall philosophy messages for business and more recently foisted on the public sector, due to the UK Government's ludicrous obsession for trying to judge public services in terms of profit.

The second addition to Schedule+ is the key points of "The Seven Habits of Highly Successful People", a successful - of course - self help book from the USA. Using a combination of parables, bits of



Multiproducts with - WOW! - Multitasking.

From QDos to Kudos

CONTINUED

philosophy from a wide variety of literary and historical sources and the fashionable language of business self help books, a program called Seven Habits Wizard takes you through a list of "values", asking you to choose those from such as "truth", "generosity", "family", "wealth" that you respect. It also asks you to select personal strengths and weaknesses, influences and even the principles in which you believe.

"Wizard" then mixes these into a "mission statement" for you personally which you can stick up on your own wall. ("My aim is to work so hard with such brilliance and create my own luck so that I can dominate the next generation of computing, buy Microsoft and fire Bill Gates." How does that suit you?)

Wizard then requires you to define the different roles you take in life, for instance, son, boyfriend, student, (stud?), tennis player, overseas traveller and, of course, Amiga user. Then, you are not finished yet, specify the long term aims associated with those roles. (Reaching the end of the century with my parents alive, a 1st class degree in computing from Cambridge, with three satisfied girl friends, having won Wimbledon and stayed with Steffi Graf in Monte Carlo plus using a RISC-based Amiga and NOT Windows 2000?)

Wizard then throws into the pot a role you probably wouldn't have thought of - "Sharpening the Saw". This tells you what it means by explaining about a guy who spent five hours grinding away at a tree with a blunt saw. When he was asked why he didn't stop to sharpen it, he replied that he was too busy sawing.

"Sharpening the Saw", the Wizard tells you, means that time should be set aside from the usual things you do to concentrate on turning yourself from the person you are to the one you want to be. Then the clever-dick Wizard tells you to think about your long term goals and decide on something you'll do this week to bring it that much closer. (Phone Steffi Graf?)

Now is this what you want from a computer program? Is this born again, downhome, how to win friends and influence yourself philosophy stuff relevant to what appears on your monitor screen? Before you decide that, think where it comes from, where this "making myself better is what God, my

mother and my bank manager wants" idea originates.

Bill Gates did not emerge from the laidback Californian, Silicon Valley, hippie-based flower-power generation. He was just a few years too young for that. And he came from quite wealthy middle-class God-fearing Seattle stock. You may be sleepless in Seattle but you'll be mostly wet too because it also rains there a lot so if you are bright you go East and to Harvard where you drop out after a couple of years because your contemporaries and maybe even your instructors don't fit with your ideas. You already have the individualistic, pioneering, we can do it spirit that took the covered wagoners west, but you can still

absorb the puritan, work ethic philosophies on which upper class, East coast, Ivy League society is based.

Just Do It

Later if you wanted to be different in middle class Seattle, you could take up grunge and garage and make music your escape but you would not gain the approval of the by then 25 year old successful business nerds. They didn't cut holes in their sweaters to look punky but really wore them out at the elbows and never noticed and were smart enough to employ the ad agency that created the slogan "Just Do It" for Nike.

Everything You Never Thought You Wanted to Know about the Gatesian Phenomenon

You could be reading this on William Henry Gates the Third's 40th birthday - he was born on October 28th, 1955.

He dropped out of college in 1974.

In 1975 He founded Microsoft with a friend, Paul Allen - now also a billionaire. Both are investors in Steven Spielberg's new company DreamWorks.

In 1980, when the company had 40 employees it was contracted by IBM to supply them with an operating system for their forthcoming PCs. (The man they originally went to see who had a program called DRDos wasn't at home. So happens the luck from which fortunes are made.)

Microsoft did not create the idea of MS-Dos. It bought the original version, Q-Dos, from the Seattle Computing Company.

The company now has nearly 18,000 employees and operates in some 30 countries. It is still headquartered in Seattle.

Bates personal fortune is now estimated at £9 billion and rising. He has said that later in life he is going to give it away. But not yet to whom.

Windows 95 was a year late in being launched. It comes in 20 languages, though Japanese has yet to arrive.

Microsoft paid the Rolling Stones £8 million to use the band's 1981 hit "Start Me Up" as the music for the TV ad. Bill Gates has never been to a Rolling Stones gig.

More than two hundred companies manufacturing PCs and software around the world have said Windows 95 is to be preloaded on their PCs or they have created software compatible with it.

Some 450 books on Windows 95 are to be published.

It is estimated that more than £600,000,000 will have been spent by the end of 1995 on the promotion and publicity of Windows 95 and associated products.

It is believed that Microsoft is already well advanced on the development of Windows 96.

Gates wants his children - and he hasn't had any yet - to go to church and live the American dream. That means that he believes in the Good Books - the manuals of self help - that can make you realise that YOU too can be a billionaire or President and that failure is just another step on the way to success, if you can keep on positively thinking. He even writes a column in newspapers where he says things like that.

In this, and in the ideas behind the Schedule+ program, he



Encarta 95, possibly the best known CD Rom in the world

expresses the strength of the American way, the optimism, the drive, the hope, the willingness to open up new frontiers. Perhaps that philosophy is best reflected in computing itself, the newest and becoming the most powerful industry in the world. In computing, the USA is unquestionably dominant, especially in software in which creativity, imagination and the readiness to take risks are the key factors. (Risk was Gates favourite board game as a child.)

You can feel the Gates personality and the American dream behind programs like Schedule+ but also behind the the whole brilliant marketing of Microsoft and Windows 95. For from the messages with which you and a very substantial part of the Earth's population have been bombarded, hasn't it been made to sound as if this not too special operating system, on what until now have largely been business computers, is going to change the whole world?

Read your mission statement and follow Wizard's advice and you will surely get your Andy Warhol 15 minutes of fame, says Uncle Bill. Or be like me, I have an uncertain future, but by God, I'm not going to let anybody know it. I'm going to sell them Windows 95, Windows 96, Windows... I can do it!

CONTINUED on page 62

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E & O E



On Line

Time Warner has announced plans to create an on-line information service for home computer users. The US media and entertainment giant's new on-line facility will offer access to news and information services created by Time Inc. publisher of magazines such as Time and Sports Illustrated. Subscribers will gain access to the Internet and it is claimed by Time Warner that the service will provide new competition to CompuServe and to Microsoft's planned Network.

Time Inc may have loads and loads of information but compete with the all-conquering Microsoft in things electronic? Oh really? As we say in the NewsFile.

Mother of All Networks

Graduating from a band of nerdish surfers to the establishment of chains of sophisticated cybercafes, from keyed in cyberchat and dry academic papers to voice transmission and big business ads, the SuperInformation Highway - the Net - is quickly (Sorry Mr Editor if you don't agree!) becoming part of everyday communications life. If you want to contact your favourite radio station, forget 'answers on a postcard' or even faxes, just key in the Terry Wogan's - oh all right, Virgin's - Email number. Want to know really how to pour a glass of Guinness or cook a pan of spaghetti with Ragu sauce? See the websites. They're on with interactive ads. Need to

contact your MP? Yes, try the Internet - provided it is Chris Smith (Labour's shadow Heritage Secretary) as he's one of the few already online.

Internetting is no longer the a wierdo techno pastime, it is big business. And business is taking off. From £200 million last year to a projected £7 billion by the end of the century. Are you going to one of those who cash in?

A new network is claimed to be connected to the Internet every 30 minutes and with 1 million new users join each month. By the year 2000 some industry participants are predicting 100 million Internet users. The recent surge of business interest in the Internet has been driven by the easy-to-use software for searching the Net's information resources, like Netscape's Mosaic, but mainly because there are so many potential customers that businesses cannot ignore it.

The fastest growing area of business is through the World Wide Web. This year alone there have been more than 15,000 WWW home pages set up by individuals, academic institutions, companies, government departments and other organisations. In addition many companies have created electronic billboards to advertise their products, producing a commercial element through multimedia presentations, three dimensional images and video.

WebSpace from Silicon Graphics can be used to create three dimensional virtual worlds and Hot Java from Sun Microsystems can serve as a Web browser to down-

This month Anthony Mael and Martin Witton cruise the SuperHighway picking up some interesting hitchhikers on the way.



You even get saucy grannies on the 'Net' now.

reports on sports results with live video updates and interaction.

load static pages of text and graphics using small software applications created by Sun Java's programming language.

Such Web graphics will enable holiday makers to take on-line tours of their possible destinations to check out whether all those lovely beaches really exist. The Net presentations of Muroroa will doubtless show France's atomic testing sites. Keep your eyes closed while watching that one.

Electronic shopping has become more interesting as merchandise can be examined closely. Barclays have set up Barclaysquare (Isn't there already one with nightingales?). Even Sainsbury's - "Good food costs less on the Internet?" - are making their presence noticable.

Another possible application not yet technically or maybe financially practical could be up to the minute

Music

RealAudio from Progressive Network, a spin-off company of Microsoft - where have we heard of that company before? - works with existing Web browsers to provide an improved method of transmitting voice and music via the Internet. The company has announced three new products - RealAudio Player program for consumers, the RealAudio Studio for Web site content creators and RealAudio Server for online publishers.

QuickTime Online from Apple, promises music videos over the Internet. To play back the interactive music files, users will need Apple's QuickTime program - offered for sale online, of course! Quicktime may be a little of a euphemism though, it takes about

Party Line

The Net - "The global communications facility, marketing and research device and channel for electronic commerce" as they trendily call it - is being seriously taken up by the Labour Party. Tony Blair says he wants to ensure that "a technological infrastructure covers the country and is as accessible as possible." Alongside the welfare state, information technology is one of Labour's claimed two major - sorry, wrong word - most important priorities for the coming, and possibly election, year.

It's nice to know that our potential rulers are beginning to stroll along the SuperHighway, isn't it?

ten minutes to download a video lasting two minutes!

Over Their Heads

While this all sounds exciting, Zenith have recently published a study 'New Interactive Media' because they found that quite a lot of the population still find "the superhighway business" over their heads. In fact, Zenith conclude that many video recorder owners still have the clocks on their VCRs permanently flashing at 12.00 because they haven't yet worked out how to program even the clock! Get them on the Net? Oh yes!

The Zenith report is aimed at advertisers to enable them to take up the opportunities of the Net.

INFO

New Interactive Media,
The Practical Guide.
Zenith Media, Bridge House,
63-65 North Wharf Road, London W2 1LA.
Price £100.00.

CompuServe

CompuServe has announced that it plans to integrate its services with the Internet and to invest £200 million over the next three years in network infrastructure, software development and Internet security.

The company has also unveiled new products designed to give users access to both CompuServe and the Internet. These include a free NetLauncher, a Point-to-Point Protocol dialler and Web browser, providing CompuServe's membership with direct access to the Web. CompuServe will also supply free the CompuServe Information Manager for Windows, WinCIM, providing Internet In A Box users with access to consumer information.

Internet In A Box will also get free basic CompuServe services for three months.

Cars on the Superhighway

You may yearn for a Ferrari, Porsche or Rolls but if you want to know which of the car companies has crossed the line first on the race to the Superhighway it is none other than unglamorous Vauxhall. The Luton-based, GM-owned company claims to be the first UK car manufacturer to launch interactive advertising on the Internet. It now

Cheap Call

Digital Equipment Corporation (DEC), known for their lightning fast Alpha chip) is planning to launch its own telephone-on-the-Internet product this year. The Internet Phone product, say DEC, will allow Net users with the right software, a SoundBlaster card and a modem capable of at least 8Kbps to make an international call for the price of a local one.

has a website of interactive menus, pictures and information screens featuring Vauxhall's Frontera 4 wheel drive car. (Did you know that the four wheel drive "off road" vehicles have replaced portable phones as the fashionable "poseur" item?

According to recent research only 3% of them ever go off road!) Vauxhall claim that theirs differs from the normal "list-like" websites as the user can explore the Frontera through a menu of interactive screen displays including animation, audio and video playback.

Vauxhall say that they are going to start an extensive awareness advertising campaign including "tease and reveal" ads "in all the leading major 'E-zines' (electronic magazines) with a hotlink for the user to move to the front page of the Frontera website." The "E-zines" used include Electronic Telegraph, Electronic Top Gear and Electronic Financial Times. And Vauxhall are claiming that they are the first advertiser to use these electronic publications and link the ad to a full website. You can bet, however, they won't be the last. As we said earlier, big business is sitting up and taking notice of the commercial opportunities on the Net - whether Gary Fenton likes it or not! The Frontera web-site can be accessed on <http://www.vauxhall.co.uk>

Want to be a Journo?

For those potentially thousands of "Hold the front page!", jet hopping, portable computer clutching

writers who can't ALL work for AUI, the Net has the answer - or rather publishing company EMAP has. Browse free among all those plum journo jobs that you might deign to apply for if they offer you enough column space, cash and unquestioned expenses.

Back of The Net?

Propeller-head Netters of the past may have had little time for the "laddish" or loutish or even "Loaded" tendencies of the hooligan element - otherwise known as football fans. But the growth more general public Net users - and the success of games such as Sensible Soccer that show that even computer users are not immune to grown men running about and falling over while trying to kick a plastic ball - means that the Net itself is naturally starting to cater for the "You'll Never Walk Alone" and other obscenities chanters.

There is now a virtual library which is said to collate all the known soccer web sites worldwide. That's on: www.atm.ch.cam.ac.uk/sports/web.s.html.

From there you can use links to the unofficial pages of every Premier League club and some Endsleigh and Scottish league clubs and other clubs around the world.

While the present pages are unofficial, you can bet that with the big business that marketing foot-

ball clubs is today with clubs like the egregious Man Utd taking more money from selling their awful replica shirt sales to gullible young Nicholases and Victorias than they do at the turnstiles, there will soon be official sites flogging merchandise to credit card-owning Net soccer fans. As they say at next year's Premier League champs - EE-Eye ADDITUP!

One Net oddity is the West Ham website which is created by a supporter, one Steve Rappaport, from his home in San Francisco, USA. Apparently there are quite a few West Ham fans out there on the appropriately-named West Coast, including the brother-in-law of AUI contributor Daphne Moss. Support West Ham? Of course, California has always has more than its fairshare of nutters.



Really mutant marketing for the great marketer and President to come?

Mutant Marketing

How would you like to contribute to "A Darwinianesque Internet site"? A Net-loving gent called John Kearon on @cityscape.co.uk is planning such an obviously much needed addition to the SuperHighway. His concept? "To create an evolutionary environment which propogates the non-random survival of randomly



Netting the next Nigel Dempster or even Martin Witton?

MEDIA JOBS ON THE NET

Point your browser at
www.emap.co.uk/media/

seeded marketing communication ideas". We kid you not that's what he says.

Which loosely translated, he also says, means "A communications forum which becomes a cauldren (sic) of experimentation and new ideas because anybody can contribute, anything goes, nothing is edited or controlled and

the only arbiter of whether your contribution lives or dies is its popularity with people accessing the site."

So, Homo Nettus, if you want to establish your SuperHighway Darwinian credentials you can contact John Kearon on the site number above or go back in time to the unevolved old voice communication system of the tel-e-phone and speak to him on 0171 240 0888.

Window Chopping?

All the billion dollar hype of Microsoft's Windows 95 might have been down the drain if the US Government hadn't copped out on its original intention only a few weeks ago to stop the whole goddammed thing because of the close link up of the world-conquer-

ing PC operating system and its creator Microsoft's attempt really to make money by dominating the SuperHighway with the Microsoft Network. Microsoft Network's subscribers are being offered access to Email and bulletin boards - wow! - and other services. But so far in the UK only 14 British companies have signed up to provide services. However, you will be thrilled to know that they include Intergreetings, which provides animated greetings messages sent by Email. Now isn't that what you have always wanted to use the Net for? Clever old Gatesy though is trying to make the whole thing very exclusive by limiting the original number of subscribers to 500,000 around the world. Cost? Initially, £55 a year to include two free hours a month and £3.25 an hour after that. Don't all rush.

Real Winners

So fashionable has the Net become that anything involved with it can grab the headlines and the loose money that's around. Hardly surprising when the use of the Net increased more than tenfold in 1994 from the previous year.

One of the reasons for this increase was the easier access made possible by such products as Mosaic and Navigator, both uncoincidentally created by the same company, Netscape.

When the company, founded just 16 months ago by then 23 year old programmer Marc Andreessen, floated its shares on the New York Stock Exchange, a few weeks back, Wall Street went into a frenzy. The official price of the company's shares set at \$28, hit \$75 on the first day and ended giving

the company a value of \$2 billion - a mere £1.4 billion, practically a million grand a month since its beginning. Not bad for a little browsing program or two.

However, what goes up... Netscape shares a few days later slid when the word got out that a crack - and we do mean crack -

French programming team had literally cracked the code of the key Netscape products. Still with all those juicy shares to cash in, Marc Andreessen is not to going to worry how to pay his next phone bill, is he?

And finally we round up the Online section with news that even the great contemplation institution, the real home of browsing, has succumbed to the wonders of technology! Yes, Netfolks, Dillons bookshops have installed eight Internet workstations in their Gower Street, London, store. For £3.00 cutomers can browse the World Wide Web for half an hour, use the Email service and receive expert advice on how to work computers.

Books? Sorry, sir, we don't sell those old things, anymore. Try Bradbury's at 458 Fahrenheit Street.. **AUI**

AUI On-line

If you have any news, comments, letters, or technical questions, you can contact **AUI** directly using this e-mail address:

amigauser@cix.compulink.co.uk

Or you can join our [amiga_user](#) conference on CIX, or contact us personally with e-mail

From QDos to Kudos

CONTINUED from page 58

I can Just Do It!

Keep sharpening the saw, just like Bill does.

Macintosh 87?

Apple people overwhelmed by the publicity given to Windows 95 have scornfully dubbed it "Macintosh 87". There is some truth in that. The icon-based development of Windows 95 has clearly been an attempt to make the use of the program as easy as software on the Mac. Or if it comes to that the Amiga, though I have only seen one reference to the Amiga in all the acres of newsprint that have been devoted to the brilliant publicity campaign with which Windows 95 has been launched.

Certainly the supposed great improvements in the Microsoft program have been wildly overhyped. Little things like "longer file names" have been presented as if they were some tremendous technical leap forward. And wow! Windows has 32 bit technology and multi-tasking! I happen to be writing

this on a cheap old machine called a 1200. You might have heard that 32 bits and multi-tasking are a part of its capabilities and it was launched some three years ago without everyone being made too much aware of those vital, world-shaking facts and also without the help of the Rolling Stones music. Shame!

That Microsoft have performed an extraordinarily successful marketing operation in the launch of an upgrade to a pretty clumsy operating system cannot be denied. Possibly it has been the most successful launch of ANY commercial product the world has ever seen. It has used the techniques of show business in an exceptionally imaginative way on a computer product that comparatively few people have either used, have a use for or had previously heard of. When you can buy up a whole day's issue of The Times newspaper for £400,000, get the communications media around the globe giving you moun-

**I will tell you
that users of
Windows 3.1
will find
Windows 95
easier to use,
more efficient
and a lot of fun.**

Bill Gates
President,
Microsoft

tains of free publicity and make ordinary people discuss your leader, your company, and your product... Now that's real marketing.

But change the world? Stop the wars? Feed the hungry? No, it hasn't done that. But what it has done is give the whole dimension of computing a lift into the consciousness of the technophobic public. Computing is now in. It is trendy. It is becoming

a part of the mainstream of human activities and interest - at least in the developed countries who can afford it, which from the point of view of computer enthusiasts, such as us may be no bad thing.

What the launch, however, may also have done, is, by bringing all that attention to Microsoft, have strengthened its hegemony over desktop and home computing. It has made it much more difficult for any system, whether Amiga or Apple, Sega or Sony, that is not compatible with the monolithic PC and, of course, Windows, to

survive. Not impossible but much, much more difficult.

It is significant that the lowest price for an upgrade from Windows 3.1 to 95 that I have seen advertised has been £59. Where? At ESCOM. That is one company that knows on which side of its business bread the butter is. And you can bet that is not only true of ESCOM but of everyone in computing today. As with the battle between Betamax and VHS, in the world of today's technology, it's not always the good guy, the technically superior product, that wins. It's the marketing that counts and when one system gets the power that Microsoft now possesses then the others may well get thrown right out of the windows. **AUI**

A lot of fun '95

How many Microsoft vice presidents does it take to change a lightbulb?

Ten. One to fix the lightbulb and nine to make sure that Microsoft gets \$2 for every light bulb changed anywhere in the world.

Candles, anyone?

Space for the future



Perfectly Empty

Except for a 230 Watt power supply, six 5.25" and two 3.5" drive bays, a 2.5"/3.5" drive mounting kit, a keyboard interface and a freely programmable digital display, your

A1200 Towerhawk

contains nothing -except enough space for your equipment.

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not real empty -but rather roomy.

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IDE Hard Drives (SCSI & SCSI II also available POA)

Various Quality Makes 3.5" Low Profile		Various Makes 2.5" (A1200 or CD32 SX1)		<i>This Months Specials</i>	
SIZE	PRICE	SIZE	PRICE	1GB SCSI II	£349.00
250	130	80	110	1GB 3.5" IDE	£259.00
420	150	120	129	850mb 3.5" IDE	£209.00
540	170	170	149	340mb 2.5" IDE	£219.00
730	199	250	199	<i>Syquest 270mb Removable Media Drive</i>	
850	209	340	219	SCSI or IDE inc 1 cartridge	
1000	259	540	325	£395.00	
1200	275	★ ★ ★ New Lower Prices ★ ★ ★		270mb CARTRIDGE	£60.00

NOTE: 2.5" drives come with fitting kit for A1200 and CD32 SX - 1 module.
3.5" drives can be fitted into A1200. Fitting kit costs £15 when bought with drive.

Grade 'A' Floppy Disk (2 for 1 Warranty)

Quantity	10	20	50	180	500	1000
DD	2.80	5.30	12.50	24.00	115.00	225.00
HD	3.25	6.30	15.00	29.00	140.00	272.00

Other Items

Viper 030 28mhz Mk2 inc MMU	115.00	Panasonic 4 speed SCSI-II	199.00
Viper 030 50mhz Mk2 inc MMU	POA	NEC 6XI 6 speed SCSI-II	349.00
33mhz FPU 68882	50.00	Nakamichi 7 disk auto-changer	319.00
CyberStorm 060 50mhz	POA	Epson Stylus Colour Inkjet	429.00
CyberVision 64bit Graphics	POA	Canon BJC4000 Colour Inkjet	309.00
Squirrel SCSI II Interface	65.00	Fax Modem 14.4k inc. Cables	89.00
Megalosound 8bit Sampler	32.50	Fax Modem 28.8k inc. Cables	155.00

INTO *the* TechnoWorld NOW

Part II

Martin Witton, leading a depleted AUI team - we counted them out but not all back - returns from our hazardous sortie into the ever more unbelievable but astonishingly true TechnoWorld. From earphones that are mouthpieces to the 5th State of Matter and even TechnoDeath, it's all here.

Texas Instruments has a device that gives voice to telephone Caller ID services. Spoken Caller ID enables the caller's name to be announced over the subscriber's receiver, enabling the subscriber to know who is calling before deciding to accept or reject the call. The subscriber can then use spoken commands to take the call, refuse it or re-route the call on voice mail.

BT have already launched Caller Line Identification for subscribers who wish to pay an additional £3.99 per month. The service requires a special telephone (£79.99) but alternatively a small screen panel for your existing phone can be added for £49.99. You can then see the identity of your callers before you pick up the phone.

A cheaper way is to dial 1471 and you will find out the last person who has called you, or at least their number, free of charge. You can request the operator to switch off CLI on your line altogether so you



The Amiga CD32 is used for a futuristic banking service in Canada.

can dial away without having your identity revealed, or simply dial 141 before your main number and their 1471 won't work. (And kindly stop that heavy breathing who ever is calling the Editor late at night - or let

'Ear 'Ear!

Jabra Corp, of California has created an earphone which also operates as a mouthpiece. It has persuaded IBM to integrate the Ear Phone with its wireless modems. The all-in-ear technology incorporates a speaker and microphone in a tiny unit.

him have your number.) Though the logic of the hiding the number business is a little puzzling, as presumably if the person you are ringing answers you will say who you are anyway!

Jetphone is Europe's first direct air-to-ground telephone service. Launched jointly by BT and France Telecom, the telephones have been installed on British Airways and Air France, Air Inter and SAS airlines.

The system uses digital radio links from the aircraft to ground stations, from which calls are routed via national telephone networks. The cellular technology is cheaper and simpler than the satellite based equipment used on long haul aircraft.

Keeping Mobile

Look in any national newspapers and the price of mobile phones seems to



Freephones now? They'll be paying you to take them in the coming Technoworld.

See and Hear

Video conferencing is the latest trend in communication with business colleagues and clients around the globe. ShareVision, a video conferencing kit, has been designed so users can see who they are talking to in a colour video window, as well as working with them on a particular application, which may well be the most valuable part of the system.

Both parties need to have ShareVision installed which costs around £1000 per videoconferencing kit. This includes software, colour video camera and stand, video and audio cards, high speed fax/data modem, headset and cables.

See Phone from Olympic Communications also offers video communication. As an upgrade path of converting an existing PABX to a desktop PABX, the See Phone applications include the provision of remote visual contact to centralised experts, "to reduce stress and expense of having to travel for inter office meetings" - other words to stop those sciving off executives. This video upgrade system for PABX has shared dial up access to video information and dial up of Business TV to the desk top.

be falling dramatically. However the cost of a call is still high whether you choose low call tariffs or business lines.

This may be the reason that the take up in offices is slow, with Cellnet reporting only 18% of staff using them. But mobiles are set to develop from being mobile versions of fixed phones to a properly converged product.

For example Cellnet's Personal Assistant makes use of both fixed and wireless networks, with the PA software knowing whether the person is most likely to be in the office or car or at home by trying each location until the phone is answered.

Mercury One-2-One (who have free evening calls but have just increased their monthly subscription from £12.50 to £15.00), have a system whereby the switchboard reroutes a call to one of a group of mobiles - useful if the team such as surveyors, architects or inspectors are out on visits.

Mobile Data is also being developed over the current generation of digital mobile networks. One system is the short message service which acts like a pager with messages of up to 160 characters being transmitted. Data can be transmitted via a PC as faxes or electronic mail by networks such as



The humble phone - a key factor in the TechnoWorld.

GSM - Global System for Mobile. All the user needs is an interface card slotted into the computer. This has a cable linked to the card to a suitable GSM phone such as Nokia, and allows data to be transmitted via the wireless network into the fixed one. Orange PCN plans to introduce mobile data this summer.

In addition to mobile data, network operators are trying to generate extra revenue by offering enhanced services such as voice messages. These are left by callers when the mobile they are calling is switched off, and are free, but like answering machines, generate extra calls. Voice mail can also be used to provide information services such as Vodacom's which gives information on hotels and restaurants.

As the number of mobile services expand, a new type of pan-European service provider is emerging such as

Unisource Mobile, a Swiss, Swedish and Dutch consortium which has links with AT&T to provide a one stop service for businesses using mobile voice, data and paging in several European countries.

AT&T's PersonalLink wireless data communications service is a commercial service which enables its subscribers to employ intelligent messaging with the help of intelligent assistants. These are essentially mobile software programs that go places in the electronic community and carry out their owners' instructions.

The wireless handheld computers and communicators can send electronic mail to one another using only their names to address the message. They can automatically forward messages from particular people to someone else's computer or paging device or have copies of messages about specific subjects made and sent to colleagues. In the future, intelligent "assistants" or "agents" will be able to perform even more complicated tasks such as notifying subscribers of changes in share prices, searching publications and data bases for information of particular interest to the subscriber or making travel reservations.

Big Spending BT

British Telecom heads the league of big spenders in IT in the UK spending £580m last year. This is almost £200m

more than GEC, who second, according to a survey by the magazine Corporate IT Strategy. British Gas was third with £313m.

The average information technology investment by UK companies was 1.5% of turnover compared with 2.9% in the USA. That measly percentage should keep us in our usual place in forward looking economies.. tagging along behind.



There was a time ... CDTVs were heaped (by Commodore!) as the future of technology. Ah well ... Don't hold your breath for it to happen.

THE MOTHER OF ALL NETWORKS

Communications would not be complete without reference to the electronic superhighway - the Internet.

From a select band of Net surfers to the establishing of cybercafes, the Net has now become part of everyday communications life. If you want to contact your favourite radio station, forget 'answers on a postcard' or even faxes, just key in the email number. Need to contact your MP? Well try the Internet - provided it is Chris Smith (Labour's shadow heritage secretary) as he's one of the few already on the Net.

But seriously folks, Internetting is no longer the nation's new pastime, it is big business. And business is taking off. From £200m last year to a projected £60billion by the end of the century.

The global communications facility, marketing and research device and channel for electronic commerce is being seriously considered by the Labour party as Tony Blair wants to ensure that a technological infrastructure covers the country and is accessible as possible. Along side the welfare state, information technology is

Future Photos

Remember the Photo-CD system which Kodak launched a couple of years ago, where you send off your photos to be recorded on compact disc? The digitised snaps can then be played via a compatible CD player on living room TVs. (Yes, we know that camcorders really took off for those videos of you and the girlfriend - or girl friends if you were really lucky - for very, very private viewing, but your local Boots won't develop that sort of snap even for the CD technology.)

The problem with the Photo CD system is that it is cumbersome and expensive. It's not us who are saying that but none other than George Fisher who has moved from Motorola, where he respectably produced chips for the Amiga, to the racier world of Kodak as the mere Chief Executive.

Fisher has created a new brand, Kodak Digital Sciences, which is concentrating on collaboration with other companies. Among the innovations will be a series of print stations set up in stores, shopping malls and super markets. Customers will be able to take their old prints and have them scanned, digitalized and reprinted

with all the blemishes, red eyes and other imperfections removed.

This opens up all sorts of possibilities to enhance photos to make the subject look better, or even to edit out unwanted aspects, for example removing an old boyfriend or now-divorced spouse from the picture, according to Fisher. A large sheet containing two or three photographs will cost about £5.00.

The software needed to run the print stations has been developed by Microsoft - who else! - and will also be sold in PC-compatible packages for computers.

The traditional roll of film may soon be relegated to being collectors items as new systems like Kodak new DC 40 come out. It has a disc instead of film, to store 48 high-quality digital images.

At the moment the DC 40 is priced around \$1000, but is expected to come down to be in reach of the public pocket. It is claimed to be far superior to any present disc-based cameras. So make sure you tuck away a yellow and black box for posterity - it could turn out to be valuable relic!

TechnoWorld continued

one of Labour's two priorities for the coming year.

Big Business

A new network is connected to the Internet every 30 minutes and 1m new users join each month. By the year 2000 some industry observers are predicting 100 million Internet users. The recent surge of business interest in the Internet has been driven by the easy to use software for searching the Net's information resources but mainly because there are so many potential customers that businesses cannot ignore it. The most popular use is of internal and external electronic mail with software packages allowing person to person voice calls over the Internet. The fastest growing portion of business is through the World Wide Web which provides a standard of

WebSpace from Silicon Graphics can be used to create three dimensional virtual worlds and Hot Java from Sun Microsystems can be used as a Web browser to download static pages of text and graphics using small software applications created by Sun's Java programming language.

The practical side of such Web graphics will enable holiday makers to take an on-line tour of their possible destinations to check out the location. Electronic shopping will become more interesting as merchandise can be examined closely. Another possible application could be up to the minute reports on sports results with live updates and interaction.

RealAudio from Progressive Network, a Microsoft spin-off company, works with existing Web browsers to provide a much improved method of transmitting voice and music via the Internet. The company has announced three new products - RealAudio Player program for consumers, the RealAudio Studio for Web site content creators



You've heard of solar power? These futuristic music instruments are controlled by that ancient power source - the wind. Now there's technology for you!

protocols for presenting and retrieving pages of information. This year alone there has been more than 15,000 WWW home pages set up by individuals, academic institutions, companies, government departments and other organisations. In addition many companies have set up electronic billboards to advertise their products thus producing a commercial element through multimedia presentations, three dimensional images and video.

and RealAudio Server for on-line publishers. QuickTime On-line from Apple, promises music videos over the Internet. To play back the interactive music files, PC users will need Apple's QuickTime program offered for sale on-line of course! Quicktime may be a euphemism though, it takes about ten minutes to download a video lasting two minutes!

While this all sounds exciting, Zenith have recently published a study

No More Marching Through Georgia

If you want to know what's going down in the TechnoWorld - apart from reading **AUI**, of course, the place to go is the renowned show that takes place in Atlanta, Georgia - Comdex. But now it's not going to be necessary to fly all the way across the Pond (Shame! Says M.Witton.) you can have a close look at what's happening in technostyle in London.

Softbank Comdex, the company who run the thing, have announced they are going to mount the first annual COMDEX/UK. The event, which is an expansion of the US-based computer show, will take place from 23-26 April 1996 in Earl's Court 2.

'New Interactive Media' because they found that quite a lot of the population still find this superhighway business over their heads, preferring to keep to the highroads. In fact, Zenith conclude that many VCR owners have the clocks permanently flashing at 12.00 because they haven't worked out how to program the clock! The report concentrates on factual descriptions of the new media particularly aimed at advertisers to enable them to take up the opportunities.

Megabits Per Second

France Telecom, INRIA (l'Institut National de Recherche en Informatique Automatismes) and Rank Xerox Research Centre have started a project called TransRel ATM. The project uses the latest network technology which is capable of transmitting video, audio and data at high speeds.

The ATM network splits data into equal sized packets and sends them down a fibre-optic cable. The effect of this technology is that more efficient transmission relieves the need for the whole network bandwidth to be used, easing pressure on network systems and providing a significant cost advantage over existing technology. It has been measured as able to transmit 13 megabits a second. It has, believe it or not, a theoretical speed of 25 megabits a second. And further

developments are predicted that will take it up to 155 megabits a second. That compares to 128 kilobits a second on ISDN today. The speed of the network is said to give whiteboard-sized, TV-quality, delay-free video and realtime data exchange.

ATM is thought, unsurprisingly, to be likely to overtake ISDN and become the next international standard for networking.

Printing Money

Rank Xerox has launched what they claim is the UK's first desktop Magnetic Ink Character Recognition (MICR) laser printer - the Xerox 4179. This is capable of printing complete cheques (including MICR security symbols) and negotiable documents such as bonds, warrants, stocks and shares.

The Xerox 4179 is claimed to be the first desktop printer to conform to stringent European banking standards. It will enable banks, building societies, insurers, government departments and others to print secure documentation at a regional or branch level. This will, say Xerox, help reduce these organisations exposure to fraud because fewer documents will need to be transported or stored.

Not everyone needs a printer to write cheques - though we'd probably all like one and the cash to go with it - but still use the fax, copier and printer which means we have to keep getting up from the desk. While this could be the only exercise some people get in the office, it may not always be convenient, so Rank Xerox have designed a combined digital copier, fax and printer for local-area networks. This multifunctional machine, called the Xerox Document Server, enables users to send faxes or produce finished documents to their exact specifications, including stapling, collating and multiple copies.

The server can also be used to copy paper originals. Alternatively, paper documents can be scanned into the system, digitised and combined with computer-based information to produce a single report. This is possible because unlike a traditional copier, where a light passes over a page and produces an analogue copy of it, a digital copier scans the document all in one go and digitises it so that it is stored in the same form as computer based text.



Starting here... Microsoft's weapon to dominate the Internet is MSN - Microsoft Network, controversially contained within Windows 95.

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"The Little Gem is just the thing to bring your Amiga's sound out of it's shell."

"Give your Amiga's sound the treatment it deserves – 83% CU Amiga."

"This is an essential piece of kit. Buy it now!"

"If you're serious about using your Amiga for making music, then you MUST have one of these."

Simple as that." – *Raven (MED User Group)*.

"The quality of the Gillett Mixer is self-evident."

"The Gillett Mixer is an extremely useful addition to the equipment armoury of an audio buff." – *83% Amiga User International*.

"Feed your sounds through the "Little Gem" micro mixer to make a higher quality end recording." – *80% Amiga Shopper*.

Features:

2 Channel In/2 Channel Out

Hi and Lo EQ (equalisation) to +/- 12db – to increase/decrease the bass and treble content of the sound

Pan Controls for stereo positioning of each channel – no need to suffer from hard right and left stereo panning

Battery or Mains operation – takes no power from your computer

Process sounds prior to sampling – then process again on playback!

Acts as a sound processor to seriously enhance the sound

Dimensions only 140mm x 75mm x 50mm

Compatible with all models of Amiga, PCs, Macs and Ataris



Also suitable for use with PCs, Macs and Ataris!

Battery or Mains Unit Not Supplied

The current retail price for the 'Little Gem' is £69.95 which includes VAT, packaging and first class postage. Overseas delivery: Europe add £4.00. Rest of World add £6.00. Cheques and/or postal orders only

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TechnoWorld continued

Another desk-top wonder from Xerox, this time for SoHo users, is the 3006, a combined plain paper fax, printer and copier. The machine is based on inkjet printing technology and costs £1139, plus £149.00 for a connectivity kit which allows the product to be linked to a PC.

In a recent survey Xerox found that at least half the world's multinational companies need to distribute up to 50% of their key documents on a global basis but many are under-equipped to do this.

This appears to be because the capacity of their computer networks is limited (especially for bulky documents) or because they are not able to translate them quickly enough or print them on demand.

Xerox's famed Palo Alto Research Centre (PARC) in California - that's where they invented the mouse and our own dear old GUI system - has

new world of multiple microprocessors. Oh dear! What a dilemma!

48 Hour Cassette

JVC, who developed the VHS videotape recording system, has announced that it has a new digital version, D-VHS. This will, they say, provide better picture quality and sound, or alternatively longer playing times - up to 49 hours on one cassette. D-VHS players will also play ordinary VHS tapes. (Yes, but will the clock be easy to fix?!) More than 50 firms are already developing a rival digital system that uses smaller tapes, but many will make players for both formats and let the market decide, as with DAT and digital compact cassettes. But watch out, the winning formula many well be on a disc rather than traditional tapes.

More than 50 firms are already developing a rival digital system that uses smaller tapes, but many will make players for both formats and let the market decide, as with DAT and digital compact cassettes. But watch out, the winning formula many well be on a disc rather than traditional tapes.

Smaller and Smarter

Researchers at the Cavendish Laboratory, at Cambridge University, in

Enterprising Multimedia

IBM have published a report called *Enterprise Multimedia Servers - The Movie Guide*. This study examines how multimedia is already being used successfully in many major business projects and provides strong evidence to show that multimedia will radically redefine the way business is done - dispelling the myth that it is only for games and PCs.

The study highlights that when text, graphics, images, audio and video information are combined, they significantly increase the value and impact of information.

If you want a copy of the report, call IBM on 0181 575 7700.

achieved a breakthrough in flat-screen technology. PARC has demonstrated a 13" diagonal flat-panel active-matrix liquid crystal display (AMLCD) with record-setting resolution of almost 300 dots per inch, compared to the normal 72 dpi that computer monitors can usually achieve.

Such resolution claims to make the display "paper-like", providing superior image quality comparable to laser-printed output.

Hitachi's Ace

Hitachi has unveiled what they claim is the world's most powerful IBM-style mainframes in its new Skyline range. While IBM is moving fast but hot ECL chips to cooler, cheaper, slower CMOS microprocessors, Hitachi has produced another generation by putting both on the same chip. It calls the hybrid technology ACE, for Advanced CMOS-ECL.

Skyline systems are claimed to be twice as powerful as the IBM equivalents which presents users with an interesting choice. Either they can follow 30 years of IBM mainframe logic and switch to Hitachi, or reverse their thinking and follow IBM in a possibly hazardous conversion to the brave

collaboration with Hitachi, have been looking at ways to manipulate small numbers of electrons both to store information and to process information and perform logical functions. Smaller and smarter chips are capable of storing more information and carrying out calculations more quickly. The Cambridge Group have isolated small groups of electrons from components of up to half a million electrons and have shown that functions carried out by a large number can be carried out by very few. They intend to try and isolate single electrons on small islands - creating the single electron device (SED). These will be capable of amazing memory power and can allow the equivalent of five million pages of typed text to be stored on a chip the size of a postage stamp.

Eight Gigs

Hewlett-Packard has ramped up its HP SureStore range with the addition of two multiplatform external DAT drives. The 4Gbyte HP Surestore 5000eU and the 8Gbyte HP SureStore 6000eU are user-ready units that support for Windows NT, OS/2 and UNIX.

The HP SureStore Tape 5000eU

4Gbyte multiplatform external DAT drive costs £1059 and the HP Surestore 6000eU 8Gbyte multiplatform external DAT drive is priced at £1179. 8Gigabytes! and not so long ago we were all happy with 8 Bit stuff..

In 1994, HP was the worldwide leader in DAT products, according to IDC, a market-research company. In addition IDC says that HP was the world's leading supplier of tape backup products in 1994 too.

According to IDC, DAT market share grew from less than 1% of world-

supports PCMCIA, infrared communications and peripherals and "is suitable for markets such as insurance, transportation, utilities, consumer packaged goods, pharmaceuticals and health care."

Let The Other Guys Blink

As part of the SD alliance with Toshiba and the Time Warner entertainment group, Matsushita have launched a new optical disc especially developed for use in PCs. The triumvirate are trying to persuade other electronics, entertainment and information technology companies to adopt their digital disc technology rather than that developed by Sony and Philips.

Both sides in the disc war have unveiled their versions of the digital video disc which combine the functions of audio compact discs and video cassettes. They are

also up-grading their original technology.

Matsushita have shown a dual layer disc which is capable of storing most feature films on a single side with a capacity of some 3.9 gigabytes of data.

Both sides claim they are still eager to end hostilities by agreeing an industry standard for digital discs. However neither side is willing to abandon its technology!

Many industry observers are predicting that there will be plenty of big business blood spilt in this battle of the giants akin to the original fight out that saw VHS win over the technically superior but inferiorly marketed Betamax.

The struggle also brings in the next stage of the row over MPEG standards that is going on. MPEG - Motion Picture Experts Group - is the standard used in Video CDs - the kind



Fujitsu make
Tablet reality easier to swallow.

wide tape drive revenue to more than 28% during the last five years.

Taking the Tablets

In a move designed, they say, "to set a new industry agenda for light weight mobile computing", Fujitsu Personal Systems (FPSI) produced the Stylistic 500, a 2.8lb 'tablet' PC powered by an Intel 486DX2-50 CPU, "the fastest microprocessor ever designed into a tablet".

Fujitsu modestly describe this little wonder as having 'blazing speed, feather weight architecture with the power and expansibility of a high-end PC with communications capabilities providing vertical market users the freedom of true mobile computing'.

This rugged little mobile computer



More and more electronically controlled sales kiosks are being used. Online shopping is a big growth area.

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A0123	ANOTHER WORLD	C0053	BIG RED ADVENTURE
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A0187	AWARD WINNERS 2	C0055	BRUTAL PAINS OF FURY
A0021	B-17 FLYING FORTRESS	C0045	BRUTAL FOOTBALL DELUXE
A0159	BATTLE OF BRITAIN	C0038	BURBLES & SQUEAK
A0894	BEAU JOLLY COMPILATION	C0046	BURNING RUBBER
A0107	BENEATH A STEEL SKY	C0006	BURNTIME
A0387	BIRDS OF PREY	C0610	CIVILISATION
A0231	BLACK CRYPT	C0035	DEMONS
A0642	BODY BLOWS	C0025	DETROIT
A0161	BODY BLOWS GALACTIC	C0016	DREAMWAS
A0223	BRIAN THE LION	C0029	FIELDS OF GLORY
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A0317	CHAMPIONSHIP NGR ITALIA 95	C0026	HEIMDALL 2
A0183	CHAMP. MGR. COMPENDIUM	C0032	HIGH SEAS TRADER
A0705	CLASSIC COLLECTION (DELPHINE)	C0034	IMPOSSIBLE MISSION 2025
A0743	CLASSIC COLLECTION (LOCAS)	C0009	ISHAR
A0185	COMBAT CLASSICS 2	C0039	JAMES POND 3
A0012	COMBAT CLASSICS 3	C0048	JUNGLE STRIKE
A0227	CORPORATION	C0027	KICK OFF 3
A0318	CRYSTAL DRAGON	C0787	LENN KING
A0083	CURSE OF ENCHANTIA	C0023	LODS OF THE REALM
A0304	DAMN PATROL	C0019	ON THE BALL LEAGUE EDITION
A0241	DEATH MASK	C0020	ON THE BALL WORLD CUP ED.
A0077	DESSERT STRIKE	C0040	OUT TO LUNCH
A0126	DISPOSABLE HERO	C0022	PGA EUROPEAN TOUR
A0315	DOD FIGHT	C0008	PINBALL ILLUSIONS
A0230	DRAGONSTONE	C0021	PREMIER MANAGER 3
A0167	DUNE	C0109	RISE OF THE ROBOTS
A0168	ELPMANIA	C0001	ROADBILL
A0641	EMERYO	C0036	SECOND SAMURAI
A0131	EYE OF THE BEHOLDER 1	C0110	SHADOW FIGHTER
A0236	EYE OF THE BEHOLDER 2	C0002	SNAO FU
A0135	F19 STALITH FIGHTER	C0014	SIM CITY 2000
A0017	F29 RETALIATOR	C0011	SKELETON KREW
A0051	FIFA INTERNATIONAL SOCCER	C0210	SUPER STARDUST
A0350	FIRST ENCOUNTERS	C0013	SUSAN 2050
A0002	FLASHBACK	C0056	T.F.X.
A0169	FOOTBALL GLORY	C0003	THOMAS PARK
A0188	GRANDSLAM CLASSICS	C0037	TOP DEAR
A0413	GUINSHIP	C0037	TOWER ASSAULT
A0084	HEIMDALL	C0051	TOWER OF SOULS
A0085	HEIMDALL 2	C0030	U.F.O.
A0312	HELP 1	C0057	ULTIMATE FOOTBALL MANAGER
A0153	IMPOSSIBLE MISSION 2025	C0021	WEMBLEY INTERNATIONAL SOCCER
A0589	IND. JONES FO ATLANTIS. (ACT)	C0113	ZOO 2
A0141	IND. JONES FO ATLANTIS. (ADV)		
A0211	IND. JONES & THE LAST CRUSADE		
A0028	ISHAR 3		
A0416	JAGUAR A3220		
A0386	JUNGLE STRIKE		
A0679	KHINTER		
A0489	MIG29 SUPER PULCHUM		
A0009	MORTAL KOMBAT 2		
A0039	ON THE BALL LEAGUE EDITION		
A0040	ON THE BALL WORLD CUP ED.		
A0501	PREMIER MANAGER 3		
A0050	PGA EUROPEAN TOUR		
A0257	PINBALL DREAMS/FANTASIES		
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A0059	ZEDWOLF		
Educational		CD 32	
E0109	ADI ENGLISH (11-15 YEARS)	C0601	ALION BREED SPECIAL/OMAN
A0110	ADI FRENCH (11-12 YEARS)	C0001	ARCADE POOL
A0111	ADI FRENCH (12-13 YEARS)	C0002	BANANES
A0112	ADI FRENCH (13-14 YEARS)	C0003	BATTLESHIP
A0113	ADI FRENCH (14-15 YEARS)	C0004	BATTLESHIP
A0114	ADI FRENCH (15-16 YEARS)	C0005	BATTLESHIP
A0115	ADI GCE ENGLISH	C0006	BATTLESHIP
A0116	ADI GCE FRENCH	C0007	BATTLESHIP
A0117	ADI GCE MATHS	C0008	BATTLESHIP
A0118	ADI JUNIOR COUNTING (4-5 YRS)	C0009	BATTLESHIP
A0119	ADI JUNIOR READING (4-5 YRS)	C0010	BATTLESHIP
A0120	FUN SCHOOL 1 (<5 YEARS)	C0011	BATTLESHIP
A0121	FUN SCHOOL 2 (5-7 YEARS)	C0012	BATTLESHIP
A0122	FUN SCHOOL 3 (7-9 YEARS)	C0013	BATTLESHIP
A0123	FUN SCHOOL 4 (9-11 YEARS)	C0014	BATTLESHIP
A0124	FUN SCHOOL 5 (11-13 YEARS)	C0015	BATTLESHIP
A0125	FUN SCHOOL 6 (13-15 YEARS)	C0016	BATTLESHIP
A0126	FUN SCHOOL 7 (15-17 YEARS)	C0017	BATTLESHIP
A0127	KID PIX	C0018	BATTLESHIP
A0128	NODDY'S BIG ADVENTURE	C0019	BATTLESHIP
A0129	NODDY'S PLAYTIME	C0020	BATTLESHIP
		C0021	BATTLESHIP
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TechnoWorld

continued



The shape of things to come, computers and monitors attractively designed.

that run on the video cartridge that fitted into the late lamented CD32 and was in so short supply that even Commodore couldn't get enough and had to scurry round to try and find some as everybody wanted them - and CD32 owners still do. (If anyone finds any, we'll give them a reward!)

MPEG is the standard for compression and decompression of moving video that lets the machine read the data - generally in the "whitebook" format which was invented by Philips. Decompressing doesn't take that much processing power, but compression is what needs the big effort.

What MPEG does is lots of clever working out of algorithms to make

highly complex calculations about the easiest way to squeeze in all the data.

MPEG can, for example, decide that it only needs to deal with the changes from frame to frame and so can repeat most of the picture without any alteration. That saves lots of processing power. It can even appear to guess which frames or parts of frames will come next or make a quick decision when it finds an area of a single colour that it only needs to have one mathematical formula for the whole area. Saving effort again.

Clever stuff, eh? Well, the next stage of MPEG is being argued over by the Big Fish in the world electronics pool. Lots of bucks ride on whose standard gets accepted for an even smarter system for MPEG 2 and even 3. Which is why it's taking a long time to get agreement. But take it from us, MPEG is really The Next Big Thing and our guess is that ALL and we do mean ALL desktop computers will come with it as standard within a couple of years.

Even with today's MPEG standard, with a Video-CD disk and a compatible MPEG playback card, video picture quality is better than VHS standard and sound quality is in a different - a CD - class.

Video-CD audio is the same quality as conventional audio compact disc and uses 16 bits sampled at 44.1KHz.

To be able to play a Video-CD movie, there is a need, however, for four separate items: the CD-ROM, a Video CD compatible video decompression card, a Video-CD compatible CD drive and a soundcard with speakers. But it will come, it will come.

Video on Demand

Westminster Cable, one of the pioneer cable franchises in the UK, is

looking to launch an extensive trial of video-on-demand. Starting in November, the trial will involve 100 subscribers in London who will be able to choose from a library of 50 films by using the channel selector, so there is no need for the much vaunted set top box - yet.

By March next year, 1000 Westminster Cable subscribers will also be involved in the trial, which will then have over 200 titles, to find out what sort of films people will want from their video-on-demand. (Bet soft core porn comes out on top - or perhaps we should rephrase that.)

This type of film information will be useful to BT who are also involved in video-on-demand trials, due to be launched shortly down conventional telephone lines in the Ipswich and Colchester areas.

And Finally...

TechnoDeath or rather Techno Immortality

The body of a convicted killer has been mummified on CD-ROM for medical students to explore every detail of his anatomy with a mouse instead of a scalpel.

Joseph Jernigan was 39 when he was executed in 1993, by lethal injection for a murder committed in 1981. Jernigan had agreed that his body could be used for medical research, in exchange for choosing the killing jab instead of the electric chair.

Immediately after the execution his body was flown to a medical laboratory in Colorado where it was scanned by X-Ray and magnetic resonance to create tissue and bone maps. The corpse was preserved in gelatine before being cut into 1,878 slices from head to toe.

Each one-millimetre thick portion was photographed and digitised then combined with the scans to create a detailed image of the whole body for the US National Library of Medicine.

The 5th State of Matter

Scientists in the US have chilled a gas to the lowest temperature ever achieved on earth. This they have named the new '5th state of matter' as predicted by Einstein 70 years ago.

The Bose-Einstein Condensate (BEC) was created at the Joint Institute for Laboratory Astro-physics in Boulder, Colorado, at a temperature 20 billionths of a degree above absolute zero. It contained thousands of atoms which had lost their separate identities and merged into one gigantic super-atom.

It will be useful in the short term for testing various predictions of theoretical physics about interactions between atoms and the nature of matter. In the long run there will be practical uses - although no-one knows quite what they will be! And as Maynard Keynes said, in the long run we're all dead - even Einstein.

There is a choice of access to the body - through the World Wide Web, which may be time consuming or through a CD-ROM launched by Floating Point (01734 776333). Both versions need loads of memory, with the quicker being CD-ROM. But if you are into necrophilia you'll be needing 16 megabytes of RAM and 150 megabytes of free hard disk space. Whatever turns you on...

So there we have it, a quick and dirty swivelled eyed gaze across the ever growing, ever amazing, ever more unbelievable but true TechnoWorld. Just remember when it knocks on your door and demands your money and your life that you read about it and were warned about it here first - in the TechnoNatty pages of AUI.

Playing Around

All is not deadly serious and big business in the TechnoWorld. Keeping fit for the corporate wars involves exercise, so how better to keep the ticker steady than a stimulating round of techno-golf? (How better? What about techno sex or will that make the ticker stop?)

Cybergolfers can now tee off at St. Andrews or the Belfry without the inconvenience of losing the ball or getting caught in the wind or rain! The Interactive Golf game, available from Innova (0181 207 2222) was developed by Sports Sciences of Twinsburg, Ohio. The £120 system comprises a special golf club which interacts with a small electronic mat on the floor and software that can be used in any 386 or 486 computer.

Having selected the golf course you want to play, your ball is automatically lined up on the first tee.

Ahead you see a representative picture of the real hole including trees, bunkers and the rough. You are also given the precise yardage to the hole and asked to select the appropriate driver wedge or putter.

The actual club is a short (26") object like a baseball bat, weighted to feel like the real thing. You swing it over the mat, making sure that a red spotlight projected from the 'club' passes cleanly over the mat. The quality of your drive is then determined by the speed and movement of an infra-red beam beneath the club as it passes over a couple of sensors on the mat. A microprocessor calculates how hard you have hit the ball, the direction and any hook or slice.

Sports Sciences plans to launch an interactive baseball game soon. Remember to duck.



The Virtual Future - one certainty for the Technoworld is Virtual Reality. Soon a virtual AUI?

The Amiga Answer Machine...

Andy Eskelson, Guru of the mysteries of the Amiga, answers your queries and solves your problems.



APPS

Dear AUI,
I have been reading your excellent magazine since August 1994 and I wondered if you could help me.

I have had my A600 for just over a year now and I am interested in C Programming and Ray Tracing. I have got Imagine 2.0 from a coverdisk and the tutorials do not provide much help to learning how to use Imagine so I decided to buy The Buddy System for imagine 2.0. On recently receiving it the on-line help has proved very useful but what would be even better are the prerecorded demonstrations that come with the Buddy System. These show what most of the buttons and features of Imagine 2.0 do but this is where the problem arises, I have followed the on screen prompts but I get the following problem. When a demonstration is activated it takes over the mouse pointer and clicks on things that it needs to click on, While the pointer is doing something like the above you are informed at the top of the screen what the pointer should really be doing. When I run a demonstration the pointer does not seem to do what it should be doing and it does

not seem to get to the points of the screen it needs to. Please, please help me because I would love to be able to use Imagine properly, because at the moment I haven't a clue what I am doing. My system setup is as follows:

A600 plus the following;

1Mb Upgrade (putting me to 2Mb)
Trapdoor Expansion
MPS1270A Commodore Inkjet Printer
Evesham Micros Amiga External Disk Drive

With the following software;

Workbench 2.1 (Workbench Version 38, 35)
Kickstart Version 37, 350
Imagine 2.0 Coverdisk
The Buddy System For Imagine 2.0
The docs for the Buddy System mention that you should not have screen blankers or mouse acceleration switched on, both of which I do not have on. I hope I have provided enough information for you to help me.

Gavin Nellist
Birmingham

Dear Gavin,
The only thing that I can think of is that the Buddy System was recorded in a different screen mode and resolution. If the pointer seems to be going to far, then you need a higher screen resolution, and vice versa.

The Buddy System is not a demo as such, it actually used Imagine and it needs to know exactly where the buttons are. Check the Buddy System

handbook and make sure that you are operating in the correct screen size.

APPS

Dear AUI,
I use my computer almost exclusively for word processing, making music and playing Delux Galaga.

The word processor is the best that I have ever used, including PCs. I can "attach" any screen font to a printer font - thus I get WYSIWYG even with proportional fonts. I used to use a Deskjet 500 and all of its 100+typestyles were displayed onscreen correctly justified.

I can mix, say, normal, double width and condensed on a single line and even this is displayed as it will appear in print. So are sub- and superscript.

I can call up a representation of a full A4 page with individual words represented by red lines - brilliant.

The wordpro is also very fast - pressing F1 will find a spelling error on page 20 while my hand is still returning to its rest position. Having found an error a window is opened in which is displayed the 'key' - the first few letters of the word I spelt wrongly, plus a list of words beginning with those letters. If the word I want is not listed I can repeatedly delete a key letter, thus increasing the list of possible words. The dictionary contains 250,000 where one tenth of this seems to be considered sufficient - it isn't.

My problem is, thought it's not

Answer Types

APPS

Programs etc]

VIDEO

Video related problems

COMMS

Communications

PROG

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OS

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PRINT

Printer Problems

COVERDISK

Cover Disk problems

OTHER

For Anything Else

really a problem, is that my stunningly brilliant wordpro is not native to the Amiga. It's Text87Plus4 and was written for the QL Thanks to the QL emulator I can still use it. What I want to know is - is there an Amiga Wordpro that can do the things I've written about. On your answer depends whether I keep the A1200 or sell it and buy an accelerator for my QL.

Alan Pywell
Saltfleet

Dear Alan,
I get the feeling that you are very comfortable with the QL wordprocessor, and it is going to be a very difficult task the get you to change. That's the real problem, once anyone gets used to one system changing is always traumatic.

The answer has become very complicated, as there are different types of wordprocessor for different applications. By the way PC wordprocessors are very powerful indeed, Word and Wordperfect have more functions than you would believe, but it takes time to learn how to use them.

I find that 99% of the work that I do is mainly text based. So a good text engine is called for. I chose Protext and I've been using it for years. The programmability of Protext makes all the difference. I only use a couple of macro files, but the difference that you make is well worth the effort.

For slightly more graphical work, and if I want to make use of the hundreds of outline fonts I use Wordworth, if I need to get slightly more precise I use a DTP program. Unlike a lot of people I don't have any problems swapping from one system to another.

All the features that you mention are basic functions that most of the Amiga wordprocessors will implement. The speed of the spelling check that you mention seems a little fast, but it could be an alphabetical sort system that is doing the work, i.e. the error on page 20 is not the first error in the document.

Other functions are the thesaurus, correction databases, printer support and so on. You have to decide on the type of work that you do, and purchase the program best suited to do it.

APPS

Dear AUI,
I own an Amiga A1200, 2 Mb, no HD, and included in the package was Wordworth 2, which I have been using for over a year, so, as a regular buyer of AUI magazine, I was pleased when I bought the June 1995 edition to see that some compugraphic fonts were supplied on the cover disk, which would be suitable for using with Wordworth, and I was hoping to have been able to use them. This as yet, I have not been able to do.

I read the DTP article in that month's magazine as suggested, but found it to be a little over my head. I also tried to find any information in the Wordworth manual but didn't have any luck there either.

I was hoping you may be able to send me the information I require, so as I can use these fonts in my Wordworth program. Also, I would appreciate it if the information could be laid out as simply as possible.

Thanking you in advance for your response to my enquiry.

Mr P. Beauchamp
Berkshire

Dear Mr Beauchamp,
I don't have Wordworth 2, but I do have Wordworth 3. I hope the usage of the fonts has not changed too much.

You have to copy the fonts files into the correct directory. (Intellifont/WwFonts for Wordworth3) and then run the InstallOutlines program with no tooltype set. If you want to share fonts, and you don't want to use the default drawer, you click once on InstallOutlines, and then select information from the Workbench/Icon menu. Edit the FONTSPATH= tooltype to point to wherever you have installed the fonts.

The big problem will be your unexpanded system, it is going to mean a lot of disk swapping.

COMMS

Dear AUI,
Firstly, I'd like to congratulate you guys on what a great magazine you're producing. It's got substance and it's got panache, unlike the battery farmed cack other publishers seem intent on turning out right now. However, a decent text editor on one of your coverdisks wouldn't go amiss (I know, I know, it's probably in a back issue).

Anyway, the query. I've got an A1200 with an 80Mb hard drive and a 4Mb memory expansion. In a catalogue from one of these firms which sells off miscellaneous bits of electronic equipment, a friend and I spotted a 300 baud only modem being sold off at an amazingly cheap price. What we want to know is whether this means it's complete crap, or whether it's a genuine bargain. Unfortunately details are extremely sparse, we don't even know what the model is or who manufactured it, and there are no instructions included. But we do know that it has a standard 160x100mm Eurocard with DIN41612 connector and needs +12V. Could such a connector allow the modem to be hooked up with either my A1200 or an A500, and do

you think we'd actually be able to drive it? Muchos gracias if you could give us a few hints.

Justin Casey
Dorset

Dear Justin,
You are quite correct, we put EDword on a SuperDisk a few issues ago. (Jan 1995, Superdisk 49) You can get it if you wish, for details see the Back Issues page which appears in most month's AUIs.
Don't touch the modem with a double length barge pole. It is becoming increasingly rare for 300 baud to be supported, even 2400 is fast becoming obsolete! A Eurocard connector is a 32 way edge connector. I doubt if the system is even RS232 compatible. Never buy anything second hand without full documentation, unless you know exactly what it is.

COMMS

Dear AUI,
I am writing to you in response to a letter sent by S.Hindle which appeared in Amiga Answers section in the June issue of the magazine.

In his letter, S.Hindle states that he managed to obtain a PD disk called Casio Communications so that the Amiga computer can communicate with the Casio range of digital diaries.

I am interested in obtaining this disk because I also have a Casio Digital Diary (SF-R20) but I could not locate it in any PD library I know. Since I also have the communication cable as supplied by Casio and obtain this disk I could answer S.Hindle's query by trying Casio's custom cable with the Amiga software. So could you please tell me from where I could obtain this disk or else pass on my details to S. Hindle or S.Hindle's details to me?

Another thing, are there any plans for further issues of Amiga CD? The first three disks were superb especially CD No.3.

Thank you for your kind attention and also for your most instructive and informative magazine. Keep it up!

Francis Laus
Malta

Dear Francis,
Thank you for your offer, unfortunately Mr Hindle did not state where he obtained the software from. Maybe he will see your letter and write in again and let us know. The production or not of more CD roms, is the Publisher's decision. No doubt market forces will determine the viability of more CD! Disks which, sadly may be unlikely until Amiga Technologies start producing Amiga CD 32s again. Then, however...

COMMS

Dear AUI,
I have a problem with GPFax and mobifax modem. When I transmit faxes to other fax machines it doesn't work but receiving faxes is no problem. I have phoned and spoken to GPFax Software and also Mobifax. GPFax will reply to me this week or next by fax or letter. So, I have to tried to change setting-tooltypes-modemtype=144LC but it won't work!. I've also tried other types modem, but still it won't work.
I bought a Mobifax 144 modem about 3 weeks ago, The company was PACE MICRO COMMUNICATIONS LTD. Victoria Road, Shipley, BD18 3LF, and GPFax from Australia.

Right....My computer is Amiga 1200 Workbench 3.0. and installation with GPFax.

Stephen Foster
Leicestershire

Dear Stephen,
I'm not going to be much help I'm afraid. I don't have GPFax so I cannot really help you all that much. There are a couple of points in your config settings that I don't like.

It is very unusual to use software handshaking when running at 19,200 bps. Hardware handshaking (RTS/CTS) is much the preferred option. The training failed, noisy lines might also be significant. Are your telephone lines noisy? You might have a bit too much equipment on a line. I have come across problems where equipment was picking up hash from other nearby equipment, monitors are especially prone to cause this problem.

However as you have stated that receiving is no problem, I would say that incorrect handshaking is the most likely cause of the problem. You will need to set your program to use RTS/CTS, and set the modem to use RTS/CTS. You will need to ensure that the serial lead that you are using has enough wires for hardware handshaking. (Pins 2,3,4,5,6,7,8, & 20) need to be connected through.

COMMS

Dear AUI,
My 'set-up' is an Amiga 500 plus, GVP 120 Meg. Hard drive with an extra 2 Meg RAM. I have a DATAPHONE PRO 4 Bis four speed smart MNPS/42 bis Modem, and I have Term, NComm and JR Comm software, unfortunately however I am having no success at 'logging on'.

I have tried each comms program first with default settings, then with some changes, such as



protocol and baud rate, with all the phone numbers from the July **AUI** cover disk which are local to me, but all I get is a message saying 'CONNECTED' followed almost instantly by a 'NO CARRIER' message. Please be kind enough to print my phone number and maybe someone could Phone or FAX me the settings I need, or offer some assistance. (tel/fax 01268-682191)

Secondly, with the modem connected to the serial port and my printer (Canon BJ 10-SX), connected to the parallel port, the printer refuses to work unless the modem is first unplugged from the computer, any ideas on this problem would also be appreciated.

The BBSnumber 01268-590189 is no longer available, perhaps you could print this also, as the new tenants object to being woken in the middle of the night by a computer screaming at them.

Keith Thornton



Dear Keith,
Firstly there is no such thing as a default setting for comms. You need to ensure that the system is set up as needed. I have three ideas as to what is going on. The first thing is that you need to sort out the modem settings and your comms settings.

You need 9600 bps, RTS/CTS handshaking, 8 data bits, one stop bits. You also need the correct cable, more on this later.

You must lock the DTE speed (modem to terminal speed) at 9600. Your manual should tell you how to do this, in the Hayes command set at&b1 is commonly used.

Once you have the basic settings correct you will need to investigate the flow control. Most modems default to Xon-Xoff you need to change this to RTS/CTS. Be warned that you may have to set your comms [package to Xon - Xoff, or No flow control until you get the modem configured.

Once you have done this, everything should work out.

Now the problem could be that the modem that you are calling does not support the rather low speed that you have available. V22bis is 2400bps, which is very slow by today's standards. Quite often a high speed modem will get confused, start the connection up, and then drop the line when it sorts out that it does

not like the other modem. Try connecting to someone who has a low speed modem.

The cable could be a problem. This ties in with your other point about the printer. Ensure that your cable only uses pins 1,2,3,4,5,6,7,8 & 20. Some of these pins may be unused, but what I call a standard cable will have all of these used, with the exception of pin 1 which is normally the screen of the cable.



Dear AUI,
I have an Amiga 2000 with an 80386 SX PC Bridgeboard installed which has recently developed a minor problem with the Amiga mouse, when used on the PC Bridgeboard.

The problem only appears during the power up of the bridgeboard, so I wonder if you will be able to help or advise me on how to overcome the problem. When the board was originally installed the Mouse worked perfectly well on the PC side and was always available at PC Bridgeboard startup. Recently however, it has become unavailable on the PC side, at initial power up or after a hard re-set. However, it does become available on a soft reboot i.e. utilising the Ctrl Alt Del keys to re-start the bridgeboard. In fact the mouse then works perfectly no matter how many times I switch between PC and Amiga sides: provided I have not completely powered down or hard reset the machine.

I think it might be the Amiga failing to read the Janus software or hardware that is causing the power up failure of the mouse on the PC side. I have tried re-installing both the Bridgeboard and software, and also tried installing it in a different Amiga 2000 machine but the same difficulty was experienced. This has left me wondering whether I have a minor bridgeboard fault or possibly clashing hardware.

My machine has quite a bit of equipment installed and I suppose it could be causing the difficulty, although I must say that I doubt it. Since after above mentioned test I still had the same difficulty in the other machine. So to help you with my problem I have listed below both Amiga 2000 machine setups:-

Amiga side of my machine has a Rev 6 motherboard and the following:- GVP Combo 68030 board with 4 Meg of 32 bit RAM and 52 Meg SCSI Quantum hardisk. One internal 3.5" floppy drive and one external 3.5" floppy drive. Internal Commodore 230 I Genlock. Supra expansion board with 2 Meg of 16 bit RAM.

Keyboard operated Workbench Switcher to switch to either 1.3.3 or 2.04. Philips CGA Monitor.

PC side— Commodore A2386

20Mhz Bridgeboard. DOS6_2_ IBM IDE 40 Meg hardisk. Canon Dual 3.5" & 5.25" internal floppy drive, 8 bit ISA Slotted ACUMOS Trident VGA card, connected to an external VGA/PAL converter. One multiple in and out card in 16 bit AT ISA slot, with IDE. 1 serial and 1 parallel port activated.

The other machine I tried had a Rev 6 motherboard and the following: Supra expansion boards with 2 Meg of 16 bit RAM. 2 internal 3.5" floppy drives. Manually switched Workbench switcher to switch between either 1.3.3. or 3.0. Hitachi TV CGA Monitor.

PC side: DOS 5.0. Western Digital 32 Meg Hardcard (with 2 partitions. One for the PC side and the other for the Amiga side) 1 in 8 bit ISA slot. Canon Dual 3.5" & 5.25" internal floppy drive. One multiple in and out card in 16 bit AT ISA slot, with 1 serial and 1 parallel port activated.

It seems only to affect the PC side of the machine as the mouse always works normally on the Amiga side. This is why I believe the problem may be related to the Janus software but I cannot understand why it has only recently occurred hence the need for help. I would appreciate it if you could spare some time to look at this problem and suggest a possible resolution. If there is one. Many thanks in advance for your time and help.

Pete Gunter
Southend On Sea

Dear Pete,
I don't think that there is a fault as such. The mouse still works, after a warm boot. This sounds to me as if the Amiga is a little slow in initialising something, and the bridgeboard fails to find a mouse, until a reboot occurs. I would start looking at things such as commodities, and anything else in the start-up sequences that might be slowing things down. If you cannot find anything obvious, then you will have to start from scratch with a completely clean machine and add your utilities one at a time until the fault reappears.



Dear AUI,
I have purchased your magazine for the first time this month (July 1995) and I must say how impressed I was with it.

However, I have had a problem trying to load the coverdisks, although by following the instructions they copy all right. When I load them with Workbench, I am using version 2.04, the icons appear and yet when I click on these a requester shows which says "unable to open your tool AmigaGuide." This happens with all the icons except Draughts Demo, Jelly-Othello and Ping Pong. I have

not tried the smaller utilities as I had no call for them.

I am using a standard A500+ with no expansions. Would you please explain where I am going wrong as I am new to the computing world?

Stuart Nash
North Yorks.

Dear Stuart,
There is nothing actually wrong with your system or the coverdisks. The Amiga is giving you some information, the only problem is that you don't know what it means yet.

An Amiga program normally consists of two parts, the actual program is the main part, and the Icon, the small picture that you click on is the other. The Icon has other uses to the system. If you wrote a letter such as this one, and then saved it via a wordprocessing program, it is likely that you would end up with a small icon with the name of the file below it. When you click on the icon, after a while your wordprocessor would load, and then the text of the letter. The point is that the Icon on which you clicked was NOT your wordprocessor, so how does the Amiga know how to load the wordprocessor first, and then load your text into the wordprocessor program?

The trick is all done with the Icons. There are two main types of icons that you will meet. They are Tool and Project Icons. You don't have to worry about Tool Icons, apart from the fact that a Tool is a program such as a wordprocessor, database, in other words the actual program. Project Icons you will use every day. They are your main interface into the Amiga system. A project Icon is a file that contains something that YOU have created. Such as a letter, a graphic picture or anything else.

In the Icon there is space set aside to indicate what is needed to run a program. The most common thing is the default tooltype. The default tool is the program that is needed to access the file. So a wordprocessor text file might have its default too set to Protext, which is a common Amiga wordprocessor. In the case of the **AUI** coverdisks the Amiga is telling you that it cannot find the tool 'AmigaGuide' which is a special viewer program for text files.

The full AmigaGuide archive is freely available, any of the big PD libraries will be able to supply it. There is one more little twist in this tale, you have to tell the system where you put programs. This means that you need to understand the concept of a 'path'. With your rather limited storage system you are not going to have very long paths, but the concept is easy. Say that you have a program called "MYPROG" and you put it in the utilities drawer on your Workbench disk. To access this you would click on the Workbench disk icon, then on the utilities drawer, and finally on the icon MYPROG. The path is just a line of text that corresponds to those actions. In this case the path would be:

"Workbench:Utilities/MYPROG"

The colon indicates that the Workbench is a 'device'. The most common device is a floppy disk. In this case it is your Workbench disk. The next word is the name of the drawer, the slash is a separator, the last word is the name of the program. This can be contracted or expanded as necessary.

Workbench:MYPROG would be the path if MYPROG were not in any drawer.

Workbench:drawer1/drawer2/drawer3/drawer4/MYPROG would be the path if MYPROG were buried very deeply in the disk structure somewhere.

All you need to know now is how to change the tooltypes. Click ONCE on an icon, and then select 'Information' from the Workbench icon menu. A window will open and you will see the default tooltype box. Just click in it, and modify/add the path and tooltype of your Tool (Program).

One last thing to note. You have not told me which version of Workbench that you are using. Most of the programs that appear on the coverdisks require Workbench 2 or higher to run successfully.

If you are using 1.3, in general they won't work for you and an upgrade to 2.0 would be what you need.

OS

Dear AUI,
Since the issue of the July AUI I have been running AWS on my startup-sequence. Although try as I might, I could not get it to run by following either your instructions or those in the docs, and eventually did it my way.

My query regarding this neat little program is can I get it to display through the complete startup sequence? As it is AWS displays for the first few seconds and then the AmigaDos screen appears i.e. Commodore Copyright © 1985-1991 etc.

Ideally I would like to display the program right up until my MagicWB and WBstart-up have loaded and are ready to run. My system is an accelerated B2000 with hard drive and I have enclosed a printout of my startup-sequence. Thanks for a magnificent mag. and great cover disks. Keep it up!

Ted Edwards
Leicester

Dear Ted,
I'll have to have a look at this AWS proggy:

AWS is designed to run BEFORE Workbench loads, once Workbench loads things are under control of Workbench, not AWS. All your other programs are started up via Workbench (probably from the Workbench startup drawer).

AWS takes up quite a chunk of memory, and this is released before

Workbench loads, hence the reason why you see the normal Workbench startup messages.

VIDEO

Dear AUI,
I have a CD32 with SX1, FMV cartridge, Amiga A2000 keyboard, floppy disk drive, Citizen ABC printer and 4 Mb of fast RAM. Up till now my set up has played CD-i titles such as Top Gun and Addams Family Values with no problems. However, when I tried Four Weddings & A Funeral the disk would not play further than the grey CD-i screen. I tried Almathera's Video Creator on it and selected play Video from the screen and it plays the first eleven minutes of the film but no further. I'm guessing that this is to do with 4 Weddings being white book format but any ideas as to what I can do to see the film in full and why I have this problem?

Matty Newell

Dear Matty
It is quite possible that what you say is true. However I have no idea if there is a cure for this problem. If the CD32 plays normal CD-i titles then you can only assume that the wide screen format is the problem. Try contacting Philips, they should be able to give you some explanation of the difference between 4 Weddings and other films running in MPEG. Of course, it could be to do with Hugh Grant's recent problems!

VIDEO

Dear AUI,
I have written to Amiga Format about DTV but have had no response. I have stated to read AUI on a fairly frequent basis and have noticed that you give your readership more answers to their queries than other mags. So here goes!

What I would like to do is add some simple captions to my camcorder video recordings without spending a fortune. I have created various captions with DPaint IV, Helm, TVText etc. but cannot figure out a way of linking my A4000/30 to my video recorder. I even tried using my trusty old A500 via the TV modulator.

The equipment I have available is as follows:

Amiga A4000/30, (2Mb chip 2Mb fast) 540Mb hard drive, external floppy disk drive.
Commodore 1942 monitor.
Amiga A500 (1Mb)
Panasonic SV70 SVHS Camcorder.
Ferguson Nicam VHS video recorder. (Scart socket)

Ferguson TV with two Scart sockets.

Mitsubishi TV with one Scart socket.

JVC video recorder with old style connections at the back.

If I need to buy some more equipment, perhaps you could suggest some of the most suitable solutions to my problem.

Christine Kitt
Avon

Dear Christine,
You have enough equipment for the video work, what else you need will depend on how 'professional' you want the result to be.

Firstly the very basic method would be to record video from your Amiga onto the VCR. The simple way to do this is to use the modulator and connect this into the antenna input, you will have to tune the VCR receiver to find the modulator output (around channel 36) This is no different to using a TV.

The problem with this is that you will have to record the caption, stop the tape, connect your other VCR/Camcorder and then continue. This is not the best way to do things.

A more professional approach needs the use of a device called a Genlock. This allows two video sources to be mixed together and the combined output is sent to a common output. The normal usage is for the main VCR source to be the 'master input', the Amiga is slaved from that. This means that the Amiga's video system takes its timing from the master VCR, rather than its own internal timing signals. This enables the Amiga's video to be in exactly in step with the master VCR, this prevents the two signals scrambling

each other. The output is sent to a second VCR.

The trick is that it is possible to have a transparent colour on the Amiga. You create a caption where the background colour is transparent, and the genlock overlays this onto the output from the VCR. Because the background colour is transparent the video is visible, and any captions are on top of the video.

Genlocks come in all sorts of shapes and sizes (and prices). Expect to pay up to £150 for an entry level unit such as the Roctec Rocgen plus.

Read the Genlock tests in AUI May 1995 page 28 that will give you a good idea of what is available and possible.

OS

Dear AUI,
I have a standard A1200 with a 260 Mb Zappo external hard drive. I am running OS 3.0 and MagicWB 1.2p. I have a problem with some of the preference editors, for example the WB pattern editor refuses to display and pattern when I select use, test or save. The editors work fine if I boot from my Workbench disk. Most of the others refuse to work as well. I have a few more questions:

1. How do you display pictures/load files from AmigaGuide documents?

2. I intend to buy a CD 32 and link it to my A1200 with SERNET. Will this make the CD32 run like a Zappo CD ROM i.e. can I load Photo CDs etc? Will I be able to use the CD32s memory on the A1200?

3. I have access to a scanner on an Archimedes computer at school, I have saved the pictures to a PC disk and loaded them onto my hard drive. However I cannot display/convert them on the Amiga. I have tried every format on Image Fx 1.5 and the PD version of Superview. Do you know of any program/datatype which will load or display the pictures or just check what format they are in?

4. I can't use the virtual memory on Image Fx or PPaint 6 I enter the path name Aq1:temp1 but it says that the it can't open the page or the limit is exceeded. What am I doing wrong?

A Hopson
Salisbury



Dear A Hobson,
Obviously something is upsetting your system. The only way of tracking this down is gradually to remove applications until you find the one that is causing the problem. You might have to go back to a clean system and start from scratch. Get rid of MagicWB first, and then any other OS enhancements.

It is possible to display graphics in AmigaGuide documents but I would advise you to get the full AmigaGuide archive, and also a copy of Heddley (available from Aminet and PD libs) which makes the creation of AmigaGuide documents much easier.

If you can find out the graphics

Warthogs love big jobs



You will be stunned by the speed of the new Warthog 275 from Premier Vision - and positively gobsmacked by the incredibly low price. The Warthog275 is based on the world's fastest chip -the DEC Alpha, making it the most complete cost effective rendering solution on the market.

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format in which the Archimedes saves, there may be a suitable convertor. The other option is to find a program on the Archimedes that will convert the native file format into a more common format. Sorry I've never used the Archimedes so I don't know what is available for it. But if you contact Acorn they should be able to tell you and we could take it from there.

Are you sure that the virtual memory on both programs is the same thing?

VIDEO

Dear AUI,
I would like to say how magnificent your mag is for 3.75. I have an Amiga A1200 (and I am proud of it) with 2 drives, 2 meg, a scart TV, Hyundai SVGA Monitor. I also have a Star LC24/200c printer and an Amstrad DMP3160 printer. I have a couple of questions to ask.

1. On the box the monitor says this...

Hyundai HVM 428E
14" colour monitor
vga svga 8314/a.xgn
1024 by 765 0.28 dot

I have also Amiga VGA which came with it. The real problem is this. When I use Workbench it runs quite well and without any problems. DPaint 4(AGA) is OK along with all other art packages and pictures except Photogenics (demo). This demo and a few of the other programs do not work in the same way either. All they do when you boot up from a vga is show Workbench screen which is OK then the program is displayed in the top half of the screen sometimes split in two, left and right in the middle, centre on the outside.

Stunt Car Racer, Frontier Elite 2, Pinball Illusions(demo) and a few others take up the whole screen but still split. This is because the monitor works at 32khz-40khz am I right? What I want to know that is whether there are any little black boxes that double the frequency of the cpu or a switcher so I can put the monitor in 15khz mode when I want to use or play certain programs. I hope that there is such hardware available as my Dad paid about #200 for it. If not what do you think I should do with it?

2. I have a second hand copy of Wordworth 2 with which I printed this letter out. For documents I use the Amstrad printer. I installed a printer driver into the devs/printers draw. Everything worked fine but I only had one font which is er um.. I have tried installing the printerfonts with installer but no rest. All I get is the stanndard pica9. Can you help as I am going mad about it?

3. This is about SuperDisk 61+62. First of all I tried to decompress Scorched Tanx but it

wouldn't let me. I carried along and decompressed everything else before it, all went OK. I tried again to decompress Scorched Tanx. It went OK until it asked for SuperDisk 62 and the alarm thing went off (I do wish you would remove it).

I slipped SD62 in and it kept on asking for it. It didn't work. I reset and tried again exactly the same thing happened but instead of bleeping and going on, a blank requester appeared (I know about taking the disk out too soon but the disk wasn't out of the drive.)

I reset and tried again. I decompressed it properly but when playing, after the first round was just over it went into Workbench and said I/O error. My friend Andrew tried it on his A500+ and the same thing happened.

What should I do, send it back to you and get a replacement or swear at you and put a guru curse on all of your disks. If you could write back to me I would be very pleased. This is because I find it hard to get AUI sometimes. Well what do you expect from a 13 year old?

Robin Williamson
Lincs

Dear Robin,

Your problem is that the VGA monitor is not a multisync monitor. Make sure that you only use monitor modes compatible with the scan rate of the monitor. Also make sure that you have VGA only in your monitor's drawer as this will help.

I only have information on Ww3, all you have to do is copy the fonts into the Wfonts directory and then run the install fonts program. I am trying to find out the definitive answer to this as it is such a common problem.

The I/O error is a problem with the program. The docs do state that it is very memory hungry.

It is not the policy of AUI to reply to letters individually, letters are answered in print. However, I will make use of an s.s.a.e if provided.

OTHER

Dear AUI,
I have an A1200, GVP A1230 + 4 Meg + SCSI Board, Syquest 105 and a 1942 Monitor.

The problem is a lot of interference on screen when I access any drive.

I also wish to purchase a SCSI CD ROM Drive (one of the main makes) but I'm confused about the software, will I get all I need to run the drive, or will I require software like Asim CDFS, are there any similar PD programs?

R.Jones
Hampshire

Dear R.Jones,

The interference could be caused by

several things. My first guess would be an overloaded power unit. My second guess would be that the monitor is picking up hash from the drive. Move things about a bit, and see if the problem changes.

What you get with the drive will depend on where you buy your drive from. There are good PD software drivers available as well as commercial. The drivers are available on Aminet, and from the normal PD sources. If you buy from an Amiga dealer, then I would expect that the PD drivers would be provided with the drive. (Ask first!)

OTHER

Dear AUI,
I am writing to you for several reasons but I will outline my system first; A1200 2MB (i.e. unexpanded), 130MB Reala hard drive, Cumana ext 1 MB disk drive, PowerScan 4 mono hand scanner, a Canon BJ-10sx bubble jet printer and a poxy JVC TV via the RF input.

Firstly, after using some cover disks from less superior magazines I appear to have messed up my start-up sequence in three ways;

1) on booting from the hard drive I get a message 'can't find Work: helm/helm,

2) if I install PowerScan onto the hard drive it looks for diskfont library V38 and cannot find it. (Maybe I should have mentioned that I am also running Magic Workbench !!)

3) ImageFX 1.51 is on the start-up and I cannot remove it, I have removed the main program but not the start-up. (I am not familiar with the CLI)

Secondly, having just got WordWorth 3.1 I was quite disappointed to find that I continuously run out of memory, I realise that I must get more memory but I am a bit confused as to the types available i.e. fast RAM, chip RAM etc. I would mainly use my Amiga for DTP with Wordworth, using the occasional mono picture. How much memory and which type



should I get?

Thirdly, I was both happy and depressed to find on your back cover of the August 1995 issue that the new A1200xl is due soon. Using the 68030 processor and at a maximum of approx. #300 seems very cheap when to expand my own A1200 to the same processor would cost a further #200, that is without the FPU which is a further #99.

My dilemma is whether to upgrade to the new xl or to wait and hope that the expansions for my 'bog standard' 1200 come down in price. Any words of wisdom would be appreciated. Maybe for my needs a few extra Megabytes of memory might be sufficient.

I have heard that over 4MB of RAM messes up the PIGMIES port, I would like to get a Squirrel at some point and use a CD ROM, are there any complications with that??

Fourthly I have a problem in Ww 2 & 3.1 that after I print a document I get a form feed and when I insert the next sheet it just runs straight through, probably something stupid on my behalf.

Lastly I would like to inform you that I am about to start subscribing to your magazine as I have not missed an issue for a year now and I don't regret it at all. I thank you in advance for your help.

Yours Sincerely
Norman Murray

Dear Norman,

Your first points are going to mean some CLI work. You need to load the User-Startup file into a TEXT EDITOR, NOT A WORDPROCESSOR. You should have ED available, which is fine for the small amount of work that you have to do.

There are two files that control the startup of the Amiga. The primary file is called the Startup-Sequence, from Workbench 2 and above a second file called User-Startup was introduced, because so many users were upsetting the main file. User-Startup is the first place to look. Both the startup files are in the S: directory. (Use the Workbench show all files option. Make a copy of the startup files under a different name, just for security. You might also like to drag a copy of the user-startup into the ram disk and work on it there until you get used to the editor.

Open up a shell, type cd Ram: then ED User-startup. Scroll up and down and look for lines such as Assign helm: Work:helm/helm, or anything with the word helm in it. If the installation has been done to convention there will be a couple of comments in the file which say:

```
;BEGIN HELM
```

```
...  
;END HELM
```

if so delete everything from the BEGIN to the END lines and that should remove anything to do with helm.

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Field reports on Scala, computers in cars and data protection.

Reviews of Montage 24, CSA 12-Guagè, Pro Calc 2, Fujitsu Gigabyte Hard drive, Technosound Turbo II and Seikosha Speedjet 200 and Epson Stylus 800 printers.

Including SuperDisk 30: Angie WB customisation, FMSynth, Hyper doc reader, Galaxians clone, ToolsDaemon, VirusChecker and more.

December 1993

Investigation into the future of Amiga, National Trust use of Amigas and PAL toaster.

Reviews of AmigaSAT weather watcher, Minigen Pro L1000 genlock, Citizen Swift 90, SupraFax modem, replacement mice, Z3 SCSI controller, PIP TV tuner.

Game tests include Premier Manager 2, Overdrive, Qwak, European Champions.

Including SuperDisk 29: MAND2000, Spreadsheet, AddTools, BigAnim.

November 1993

Field reports on consumer electronic gadgetry, Amiga Pasadena 93, ECTS and Inovatronics.

Reviews of hand held scanners, Bars and Pipes Professional, Real 3D! 2 & Brilliance.

Game tests include Bubba'n'Stix, 1869, AV8B Harrier Assault, Ishar 2 1200.

Including SuperDisk 28: MagicMenu, Random Dot stereogram creator, CacheClock, RecPlay, AssignPrefs, Xatoms game, Module Player and more.

August 1993

Feature on MPEG development and hard drives. Test drive of Image FX, Excellence!, VistaPro.

Tips on 3D, ray tracing, A1200, AREXX and programming.

Game reports include Lotus Turbo Challenge 2, A Train, B17 Flying fortress.

SuperDisk 25 includes Digital Illusions, Speechtoy 2, SysInfo, Trax

July 1993

Exclusive feature on David Pleasance and New York World of Amiga show.

Test drives of Professional Page 4, Pagesetter 3, A-Talk III, Quarterback, Action Replay cartridge, Real 3D 2, Fujitsu hard drive.

Tips on video, databases, programming and A1200. Game tests include Darkseed, Lemmings II, Body Blows and Space Crusade.

Including SuperDisk 24: Icon Tool Box, Data Recall, Kill AGA, ABackup, and much more!

May/June 1993

Exclusive interview with Lew Eggebrocht.

Test drives of Aladdin 4D, SAS C, Prowrite 3.3, Essence, Citizen Swift 240C, SuperJam & Directory Opus 4.

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SuperDisk 23: OneKeyII, IFFWizard, YAK, EnvPrint.

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Compatibility: All disks up to and including SuperDisk20 are compatible with WB1.3 and above. 80% of SuperDisks 20-30 are compatible with WB1.3 and need 1meg memory. SuperDisks numbered after 30 are WB2 and 3 only, with some programs requiring AGA.

DISK NO.	FEATURES
2	HyperBook based disk - presenting a Scramble clone from the Bitmap brothers, AdPro demo, programming tips, video tutorial and a guide to workbench.
3	HyperBook based disk - presenting Sequencer One demo, MEDplayer, the famous Missile Command game, samples, graphics and a programming guide.
4	HyperBook based disk - presenting TurboText demo, Pandaal hand scanner demo, Sequencer One songs, sound samples, and a look at Spectracolour.
5	Hyperbook presentation of Designworks, RaceTRace demo, Delux Paint IV, Jigsaw, MOSFETS explanation and a PICtoANSI utility.
6	Demo of CanDO, plus full Move-it game, IFF converter, WB hacks and JRC0mm.
10	Tons of utilities including AutoCLI, FontCacheX, scroll, NewZAP, lens, Virus Checker, Plasma and HALtoIBM
11	Scala500 demo, virus checker B and Remap utility
12	SuperJam demo and utilities include Mousepress, Picbase (IFFpicture database) plus bbase (full database).
13	Calligan demo, plus biorythms, findfast, multidos, virus checker, sound wave creator and APrt - a text file printer.
14	Virus Checker 6.05 plus ham textures, aswarm, movieclip, lacepointer, pascal, ToolDaemon and ZeroG sound samples. Including full Arkanoid clone.
15	Full AudioMaster II programme! plus samples, multiplayer, Dsound, Wizard clock and Fitness reminder!
16	A disk full of utilities including ENote, MTVhack, VirusChecker 6.15, Org2, aqwik offline mail reader, pascal programmer, dtp fonts, le-nag event scheduler, modmdraw (draw pictures over the modem), newipes and coact.
17	ABackup, DragIT, Tactix game, ToolsDaemon 2, Wasp Image converter, and more.
18	AmiMan: Voice recognition. Talk to your Amiga! ReOrg2.31: Disk optimiser. TinyClock: Make the time tiny. QMouse: Speed up that mouse pointer... and much more!
18b	Rare disk, Octothello board game, wordsearch creator, realthings animation, numerical pad creator for A500 owners, MagicMenu, Epoch3, Flying Toasters.
20	WhatKick, Adorage demo, Leapfrog Puzzle game and Hyperhelpers.
21	Utilities Pack. Includes Reset, bb - workbench presentation routine, workbench degrader, typewriter mimic, FullView text viewer, Noughts and Crosses game, OneKey, Spinner screen blanker and Rend24 batch image converter.
26	2 games plus, Dash: Monitor your Amiga's performance, DiskSalv2: Disk toolkit, STP: Play modules on a Hi Fi, Translate: Convert images into different resolutions, workbench games: 6 of the blighters, Virus Checker 6.28
27	Viewtek, Seekaspeed, 3D Tips, Transplant, Virus Checkers
35	Tiger Cub: The complete, unadulterated, program.
36	Super utilities include Worble organiser, FileX file editor, Assigns, Swazinfo, AddPower, AddTools, FileM, Memclear and Vat-Check.
40	FastPEGV1.10: View those JPEGs, ImploderV4.0: File cruncher, DiskSalv2: Save those disks, QuickGrab: Excellent screen grab utility, Games: GiegerTetris, Megaworm
43&44	Games: Shepherd, Gravity Force 2, Giddy. Utilities: Disk Manager 4: Disk database, Amiga Real Time Monitor: System analysis, Megajitter: Biological evolution simulator... and much more!
45&46	Games: Zombie II: This is THE famous one! Plus, Pengo, Pub Darts, Zut Alors, Trick or Treat.
	Utilities: Filthy Lucre: Money management, Disc Cat: Catalogues your disk collection, PhoneBill: Modem use monitor
47&48	Games: High Octane: Smooth and speedy track race, plus, Battleships, Knight. Utilities: ImageStudio: Incredible image effects package, SnoopDisk3: Snoop your QC3... and much more!
53&54	Utilities: QuadraPlayer: Module player, plus Invoicer, Fractal World, ARQ, Analysis, Crypt and more. Printer Utilities: Print Manager 2: Take control of your printing: jobs, PrintSel, Labels, PosterPrint and over 70 printer drivers. 3D Graphics Disk: 3D objects for Imagine, REal 3D and Lightwave, plus three disk's worth of textures. Games: Fears: Stunning Doom simulation, plus, Dynamite Warriors, Pag It
55&56	Utilities: Dion's Disk: collection of indispensable utilities, Music Makers Essentials: Quadra Composer2: Full specification music creation plus loads of sound samples and example module. Games: Insectoids from Outer Space: Shoot 'em up plus Poing!, Tetris, Pong, Disk Users' Essentials 1: ReOrg3.1: Optimize any drive plus ABackup, Artic, DiskSalv2: Disk Users' Essentials 2: SuperDuper3.13: Fast disk copier plus SysInfo3.24, A-Lock, AFCopy and more.

42-MSG
44-SEL
46-C/D
48-REQ
50-I/O

25 Way SCSI

1-REQ
2-MSG
3-I/O
4-RST
5-ACK
6-BSY
7-GND
8-DB(0)
9-GND
10-DB(3)
11-DB(5)
12-DB(6)
13-DB(7)
14-GND
15-C/D
16-GND
17-ATN
18-GND
19-SEL
20-DB(P)
21-DB(1)
22-DB(2)
23-DB(4)
24-GND
25-TPWR

Without doubt the more versatile option is to go all SCSI. You might lose a little in CD32 compatibility, but I don't think that is too much of a price to pay.

You will have to try to contact RAMIGA one this one. Though it appears that they are no longer in business. However, you could do what I did. I bought the cheapest PC mini tower case I could find. This had a PSU and lots of space. I mounted all my SCSI devices in that.

There is a version of something like AutoRoute for the Amiga. I've not seen it about for some time, but a good Amiga specialist might be able to locate you a copy.

AmiTCP is the basic package, coupled with AmigaMosaic. It is not simple, and takes quite a bit of sorting out. You will have to look at the pros and cons of service providers this situation is changing almost daily.

you need to pass a 12 words per minute morse code test.

Further information can be obtained from:

The Radio Society Of Great Britain
Lambda House,
Cranborne Road
Potters Bar
Herts
EN6 3JE
Tel 01707 659015

Note that it is not legal to connect to the Internet with an Amateur Radio Station in the UK. This is due to regulations concerning third party traffic.

The very best advice I could give you, is to join a local Radio Club. Contact the RSGB to find your nearest venue.

If you have the space, a cheap 386 base unit and keyboard would be a better bet. Emulators are fine, but there can be some problems. A real PC base unit will give you the best chance of compatibility. Look at a program called TwinExpress, this is a tried and tested PC-Amiga connection.

OTHER

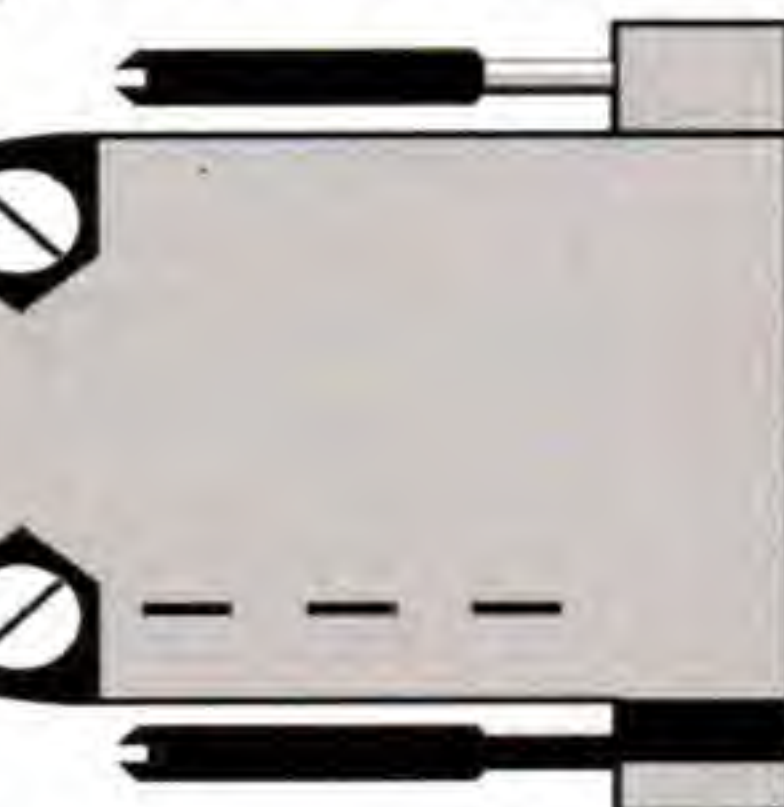
Dear AUI,
I have an Amiga 600 with a 2Mb PCMCIA card, 1Mb trapdoor expansion, 1mb internal 4Mb all together with an external drive and a Seikosha printer

1. I have a Citizen band radio (CB) FB operating from 27.60125 - 27.99125. I was wondering, can I transmit data from a computer to another Amiga? I know this is possible over the airways and I do have a license.

2. How can I save move and load files into memory using hexadecimal values?

3. What does the Sync button do on most diskcopiers?

4. What do you think of PC Task (the new one)? I'm thinking of buying it for my Pascal projects



at college so I can do a bit at home. I don't want it to run too slowly like the first version.

Paul Stanbra
Sheffield

Dear Paul,

1. The UK CB license does not permit data transmission, it's voice only.

2. This is not normally necessary, because the Amiga loads things wherever it can, depending on memory configuration. However, a product such as the debugger in DevPac (MonAm), which has saved my bacon a few times when I've crashed the machine during a big edit, can save and load files almost anywhere in RAM.

3. The sync usually refers to a process where the rotational speed of the disks is analysed and the data is written in the same physical place, normally referenced against the index pulse.

4. It will still be slow. Have you considered an Amiga Pascal? HiSoft produce one, and there are a couple on Aminet, PQC and AmigaPascal. As they are in the PD market, they are well worth a look. Providing that you don't call any fancy hardware routines such as graphic displays, Pascal is Pascal. You could easily develop your core routines on any system, the files are only ASCII text and can be transferred across platforms without any problems.

OTHER

Dear AUI,
I own a 1200 without a hard drive. I am thinking of buying a CD-ROM drive for it. Would I have to use a joy-pad to play CD32 games, as I am disabled and would much prefer to use a Joystick?

Keith McCutcheon
N.Ireland

Dear Keith,
The short answer is that it will depend on the game. If the programmers give you the option of joystick or joypad then you will be OK. If not then the joypad is really the only option.

OTHER

Dear AUI,
I have an A500+ with two meg of chip RAM, a HP Deskjet 500C and a couple of external disk drives and want to expand it some more.

What I want to do is make it about as fast as an A1200 or about that and put some memory on it too. Do you think I should get just more memory or just an accelerator or both? And which memory/what speed accelerator would you recommend I get?

I use my Amiga for DTP, Word Processing, Image Processing, Games, Paint Programs and just about every thing else.

Also could you tell me where to get the accelerators/memory from and how much they will cost? Also

could you tell me where to get some decent colour and B+W Clipart?

Nick Askew
Cambridgeshire

Dear Nick,
I can't really answer your question as such. It's a very personal problem in that I don't know what your resources are. Also you are quite capable of scanning the adverts and making up your own mind.

Consider upgrading to an A1200 as well. That might be much more cost effective, as you will get the new chipset, and a faster processor as well.

There are hundreds of PD houses that supply clipart of all sorts. Again use the adverts.

OTHER

Dear AUI,
I want to ask your advice on a little problem I have. I am presently an A600 owner which I'm quite happy about but I'm also getting a little annoyed with the time it takes to load Workbench and software limitations. I'd like to run better software such as Wordsworth and Brilliance but I'm not sure whether to upgrade my 600 with a HD plus RAM or just to sell up and buy a 1200 with HD. What do you suggest? I'd also like to ask, how does the 1200 compare to a 486 because my friend owns a multimedia 486 dx 2/66 and he won't let me forget it?

Michael Humphries
Glasgow

Dear Michael,
The most cost effective upgrade is to go for the A1200. You get the better chipset, and a more powerful processor as well. There are more expansion and other add on units for the A1200 than there are for the A600.

You cannot compare two different processors. The PC is blessed with 100's of millions of man years of software development. The applications are really very good, but normally bulky. The Amiga is a much better designed system, (It is several years newer than the PC) and the OS is not burdened with supporting very old applications.

The Amiga is also a single company machine, there has been no third party development of complete systems as has happened with the PC. If you want to annoy your friend just ask him why the effects in Babylon 5 are done on the Amiga and not with a PeeCee.

OTHER

Dear AUI,
Out of all the Amiga mags yours is easily the best. I think I've actually learnt more from the two issues I've

To become an Amateur Radio operator you need to pass a C&G exam, and then get a license. Currently the license is #15 p.a. If you want to transmit on the short wave bands as well as the VHF/UHF bands,

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THE AMIGA CARE KIT Only £39.95 (plus p&p)

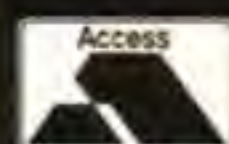
First of all there is a range of products to keep the AMIGA clean. Because the CRT display on a AMIGA generates a lot of static electricity, AMIGAs get very dusty. This is not only unsightly, but bad for your AMIGA's health as floppy disks and the machine's own hard disk can be damaged by dust particles. Included in the **AMIGA Care Kit** are wet and dry tissue packs for cleaning the screen display, a keyboard cleaner for the AMIGA's most notorious dust trap and a mouse cleaner. In addition there is a floppy disk drive cleaner which can be inserted into the drive to clean the drive's read and write heads. Most importantly, a cover is included for the monitor and CPU that will fit nearly all desktop configured AMIGAs. There is also a separate keyboard cover, which for most users is an essential item to guard against accidental spills.

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For floppy disks, the **AMIGA Care Kit** contains a pack of 3.5" disk labels, which avoids the need for crossing out and re-using old labels. There is also an excellent floppy disk storage box, called the Datafile 40, which securely holds up to 40 3.5" disks. A clear, smoked plastic lid shows the contents, but a secure lock prevents prying eyes peeking at sensitive data. Two keys are thoughtfully provided in case a key is misplaced.

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bought than from all the rest put together.

It's great to find via the Answers pages that there are other people out there with the same level of ignorance as myself. I can't think of anything more satisfying (not even that!) than making each small step of understanding my Amiga.

"Oh Grasshopper!", I hear You say, "Even a journey of a thousand miles starts with a single step".

My set-up: A600, half meg. in trap-door, extra floppy drive, SmartStor PCMCIA 22MEG HD, old TV (22 inch).

Questions:

1. I have had great fun doing animation using DPaint III, but found lack of memory a recurrent problem. Could you recommend a RAM expansion, about 4Meg will do at the mo? Not wishing to mess with the innards of my Amiga, I was thinking of a PCMCIA RAM card. Would this new SQUIRREL device allow me to keep my SmartStor?

2. Looking at my set-up, which single up-grade would you recommend to bring the best pound for pound improvement/gain? I find the monitor acceptable.

3. I've sent for a copy of a Stacker prog. from a PD house but I notice quite a few problems cropping up in AUI ANSWERS associated with them, I hoped to store my future animations to floppy with this. Could you explain the pit-falls of this prog?

4. Is there a reference book that explains all those acronyms that are so common in Amigaese? SCSI, IDE, etc, etc?

5. I was very impressed with Andy Gibson's Ultimate Quiz. Reviewed as PD, June issue. Ultimately I'd love to be able to create something in this line but perhaps a disk-mag first. Could you suggest a book or such like that might get me started on the very basics required to begin? I've actually written to Andy and asked him but I think he perhaps has forgotten how he started or may not be equipped with dealing with morons like myself.

I hope I haven't asked too much.

There's so much I need to know and so I apologise in advance for my cheek.

Stephen Wade
Birmingham

Dear Stephen,

If RAM is all that you want, anything that fits the trap door will do the job. I would suggest that you contact an Amiga specialist in your area for this. If you intend to use the Squirrel then you will not be able to use the PCMCIA slot for anything else.

I think that the very best thing that you could do is upgrade to a A1200, by the time you mess about with accelerators, and ramcards you might as well take the extra advantage of the A1200 chipset and advanced processors.

A lot of the acronyms are explained in 'computer dictionaries' W.H. Smith is a good place to look or Computer Bookshops.

I don't like stacker programs at all. I would never let one near my hard drives. On floppy is another matter. The problems are that you need to create the program files to be self extracting or have the stacker programs on them. If you only want to store your animations, then using an archiver such as LHX will give you much better compression than stacker programs that have to be optimised for speed rather than compression ratios.

Things such as the quiz can be produced in a number of ways. A Multimedia package such as CanDo is one option. You could try AmigaGuide format, or any one of several other options. There is not one book that will help, but the Bruce Smith books are well worth looking at. Read everything that you can, a lot will not make sense at first, but it will eventually 'gel' and you will see just how advanced the Amiga OS really is.

OTHER

Dear AUI,
Did you like David Fields' letter so much that you had to print it in the

June issue of AUI as well as in the May issue? Or have you got some secret gremlins lurking in the office that come out at night and alter your magazine copy?

To be serious though. I have a problem which is annoying.

From time to time I notice that my machine clock is re-setting itself with sometimes just the time and sometimes the date and time. It's not a serious problem except that any documents or files that I save are date/time stamped with the wrong time and date and this could cause a problem when I try to overwrite it with a later one. Got an answer why? Or have some of your gremlin's cousins emigrated to my machine?

Ever since I got my first Amiga A500 some four years ago I have noticed this effect. When I upgraded my A500 to a Plus and installed a new trapdoor RAM board I still got the problem and now with my A1200 I still get time/date alterations at random. At the outset when I was green and knew nothing I suspected a virus so got hold of the then current version of Virus Checker and have upgraded ever since. VC 6.53 resides happily on my hard drive and keeps my machine healthy and clean. So it can't be a virus, can it?

Finally how about setting up a reader's contact page where we can leave our names, addresses and telephone numbers thus enabling others to get in touch and swap ideas etc. You know a sort of Amiga Pen Pals page. Your letters page is great and us mere mortals can and do learn a lot from it as we read about other people's problems and your answers to them and you print more letters than any other mag but it takes at least a month, usually two, to get a letter answered and that's a long while to wait. A Pen Pal within visiting range could offer a quicker alternative.

Take it as written that I like the mag etc. etc. etc.

Jim Buckley
Blackburn

Dear Jim,

Sorry about the double letter, maybe it did not get deleted from the master files. We once managed to reprint the same Amiga Answers section two issues running! Mistakes do happen all we can say is sorry and keep after those gremlins!

Your clock, well, there are a couple of things that could be going wrong. The first is a hardware fault. If the battery is not charging correctly or is faulty then this will cause the problem you are getting.

If you set the clock, and LEAVE your Amiga running and the clock becomes corrupted, then a program running wild is the most likely problem. If you have frequent crashes you might have the old weedy power supply problem. If you have the A500 power unit still, try that, as it can deliver a bit more power than the standard A1200

power unit. If that cures the problem then you need to buy a bigger power unit. Otherwise look for a common piece of software that you have been using, utility programs, screen blankers etc. are good places to start looking.

On the face of it a contact page sounds a good idea, but such things usually degenerate into software swapping activities which AUI must not support. Why not join an Amiga user group such as ICPUG?

OTHER

Dear AUI,

I am a relative newcomer to the Amiga, having had an accident at work and being forced into early retirement. Being in a lot of pain I was unable to sleep night and my younger son, lovely lad that he is, gave me his trusty Amiga 500, together with several games which firstly kept me sane, but inevitably meant I quickly became "hooked" on the Amiga!

I also got very frustrated with it; it really drove me potty constantly swapping floppies, so I enquired about upgrading the 500 and was advised it would be more sensible to try to acquire a 1200 and build on that. I advertised and found a relatively new 1200 that was still in its basic form i.e. running on floppies with 2mb RAM.

I first of all purchased an independent second drive and because I could not afford more, an 85mb IDE internal hard disk. I still could not get any real improvement, nothing would load onto my hard disk properly and I quickly realised that something was seriously wrong. From articles I had read it looked very much as if I had acquired a dreaded virus of some sort, but what and where?

I decided drastic action was required, I wiped absolutely everything from my hard disk and sent my original Workbench disk Master Setback to Commodore UK who very kindly remastered them for me for free (aren't they kind?) and returned them with a note confirming that they were indeed corrupt!

I then set about re installing everything - I firstly reformatted the hard disk and repartitioned it then made new floppies of my re-mastered disks and installed all the things I needed on the Work copies on - partition on my hard disk. Then systematically checked every disk I had with the newly installed virus checkers I had put in my Workbench Start-up Drawer.

I eventually found the swine hiding in the "Virus-Killer" Master Disk the twit who sold me the 1200 had given me and with some pleasure pressed the "shall I nuke it?" requester. From then on I have





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had no really major problems except in installing things like AUI Disks onto my hard disk.

I still cannot load on any games either but that is less important as I can at least play them with floppies. But when I bootup with AUI SuperDisk 59 in FDO and Disk 60 in FD1, a black screen comes up with the titles, quickly replaced by the AUI screen saying it is working on the installation. Then a screen comes on with six letter options, saying "press Letter a) b) c) etc; then press return," which having done, zilch, nothing else happens!

My entire system is now : 1200 connected to a Citizen 200, 24 pin dot matrix printer in the parallel port; a separate Amitek floppy drive which is FD1; the 1200 has an 85mb IDE HardDrive on board partitioned into 12mb Work and 72mbMyHardDisk; a 2mb expansion board in the trapdoor giving total 4mb RAM (not accelerated, a 32bit card with clock - it came from Gasteiner - at the time I bought it nobody else had any!) and finally, it's all connected to one of the clever HiQ "all in one" boxes that you reviewed this month and with which I am well pleased. You know, of course, that it has a Squirrel interface plugged in to the PCMCIA slot and is connected to my Sony Trinitron Monitor/cumTV with a Scart plug.

I am sorry that this is all long winded, but I didn't really see how else to explain where I am at! I have tried desperately to put things like "Railroad Tycoon" from Microprose on to my hard disk, but it just refuses to go and as I have already explained I cannot get quite a few Magazine disks I have tried to load to run. Somewhere it must be to do with the machine all booting from the hard disk, because with quite a few of the games, they will auto-boot on start-up quite happily and run on floppy, but it is all highly frustrating and I am blown if I can see what I am doing wrong!

I have enclosed a SAE in the hope that you will reply, because I am sure, even if you edit this letter will be far too long to print.

Ian Aisbitt
North Yorkshire.

Dear Ian,
You do seem to have had a hard time with your A1200. I would make one comment about virus protection in general. You should have booted from floppy, and then made working disks of your system floppies. That would minimise the chance of corrupting a disk again.

Virus checkers/killers are prime targets for viruses, if a virus can attach itself to such a program it will get spread very quickly indeed. I would have thrown the disk out.

Your problem with SuperDisk 59 is a bit odd. I think you are the second person to have reported this. I can't get the problem to appear but I have had words about the colours used in

the control scripts.

Try pressing left Amiga M to bring the CLI screen forward, it may be that for some reason the keyboard is not being read correctly. You should find some text on the CLI screen that may tell you what is going on.

You need to check your ASSIGN paths carefully. If you used the HDinstall program they should have been set up. Open a Shell and type ASSIGN <ret> if you see anything that is still assigned to a floppy drive, you will need to edit your startup and user startup sequences accordingly.

Most of the Ccoverdisk program should work on hard drives, watch out for odd paths and assignments. Check the tooltypes of the icons and ensure that they are not trying to access 'superdiskXX:' if things get awkward, make the Amiga think that it has a SuperDisk in it, type assign superdiskXX: myharddisk/mydirectory. See my toolbox series on the subject of Assigns.

You will be at the mercy of commercial games programmers. Some games are designed to be installed on a hard drive, others are not. Even games that are supposed to be hard drive installable, sometimes fail. In such cases only the producers of the games would be able to help, as they normally use special loader routines. Such is the price we have to pay for software pirates.

COVERDISK

Dear AUI,
When I boot up SuperDisk No. 53 installation screen appears no problem, but when I follow instruction and select A or B etc and press return nothing happens, no requesters, error message, or crash, just nothing. I returned disks for exchange, same result from replacements.

Have bought the June issue of AUI Disk 59, same problem. Any suggestions?

Set up

Amiga A1500
Workbench 2.05 V37.71
Kickstart V37.175
Memory 4Mb GVP Zorro II
Hard Drive 114Mb GVP Quantum

Fernie Schoolhouse
Fife

Dear Fernie,
Sorry about not giving your name, I can't make head nor tail of your signature!

I have tried the disks you mention in my A2000, and I found no problems at all. Try again and if it goes wrong switch screens (Left Amiga M) and see if there is an error message this might give a few clues as what is going wrong.

COVERDISK

Dear AUI,
Although I am a novice user of an Amiga 1200 I have never encountered any problems decrunching your excellent Coverdisks that is until you started to include a hard disk installer on them.

My problem seems to be that when the installer asks to which volume I wish to install, my Zappo Smart Stor Plus (214Mb) is not on the mount list and therefore I have to install to floppy instead.

Is there something I am doing wrong or is it because the Zappo is



connected to the PCMCIA slot?

Your assistance in this matter would be very much appreciated.

My next question is not a problem, just a query. Is it possible to remove the Smart Stor hard drive from its external casing and mount it internally? I ask this question because I hope soon to be buying a CDROM using the Squirrel Interface but it seems that both cannot be connected at the same time.

Finally my set up consists of a bog standard A1200 2Mb, Zappo Smart Stor Plus 214 Mb, 14" colour TV and a Panasonic KXP 2123 colour printer.

Laurence Martin
Dalkeith

Dear Laurence,
Open a Shell and type Assign. This will give you a list of devices, if your Zappo is on the list there is no reason for the script to fail. As far as the Amiga is concerned the Zappo is just another device. The script uses the standard AmigaDos commands and libraries and knows nothing about Zappo drives, nor any other drives for that matter.

If the Zappo drive is SCSI then it should be possible to connect it to a Squirrel, only by checking the type number on the internal drive can you be sure.

COVERDISK

Dear AUI,
I am having problems getting Boot Utility2 to work (AUIJUN95a). I double click on the icon and a while later a requester tells me to Insert Workbench 2.0 in any drive which I do. Then BootUte2 puts a requester box saying BootUte error, you do not have ENVARC: TLS/BootUte/ directory. Shall I create it yes/no?

Pressing "yes" puts a request for the Boot Utility disk. I put the disk in and after a <whirr> it seems to just give up and does not load. Trying again has the same effect. I used the installer but it aborts after

copying docs/Register_BU.doc.info with a request for the Workbench disk which I put in. Then a pop up saying Sorry... an error has occurred! MAKEDIR: Couldn't create directory DOS error Type: Unable to locate a file or drawer, and aborts when proceed is clicked on.

Please tell me what I am doing wrong. As well as this Disksalv (AUIAPR95c) only works when it wants to. Running REorg 3.11 (same disk) usually fixes it but it is annoying.

Finally, is there a deeply technical book about the Amiga (i.e. ROM handles C, Boot blocks and guru numbers. And definitely finally why does the power light flash when I am about to see a flashing red box?

Andrew Nielson
Manchester

Dear Andrew,
I've just installed bootute using the installer script, and I found no problems. If you are having trouble then the best bet would be to create the directory manually. Remember that you have to create the directories in the ENVARC directory that is on your Workbench disk (or should be) I think that your real problem is a lack of storage. Disksalv does not rely on

reorg doing anything. Also reorg does not do anything useful apart from shifting the files about.

There are lots of technical books for the Amiga the main system documentation is held in the Rom Kernal manuals, the DOS in the AmigaDOS manual. There are many others available. Check with Bruce Smith Books. They regularly advertise in AUI.

COVERDISK

Dear AUI,
I have a A500 with 1Mg chip RAM, GVP Mk2 52mg hard drive with 2meg RAM, 1802 monitor, total 3Mg .2.04 Wb, Down to the problem. I also have the same problem as Liu CHI Hui Aug. Answers. I have mounted diskspare.device in Devs draw on Dh0, merged mount list in DH0: mountlist, and altered user startup, all as recommended in the docs. from SuperDisk 49. When used I get a icon. Ds0.Ndos on Workbench. If this is double clicked I get the message Icon(S) have no default tool. What am I doing wrong? I have tried DIR in shell but get no results from this.

2/ When I installed Dropbox from SuperDisk 64 and attempted to load Lzx from SuperDisk 57, I didn't get any results. Could you please assist in the Template order instructions? I need this to extract Bbslist from SuperDisk 62 as it won't unpack by itself. Have I just got a bad disk or are other people having any difficulties?

3/ I have done a mod on my board to give me 1 mg chip RAM, do I now have a 500+, as I want to add more trapdoor RAM and I am not sure what I have turned my computer into. May I add my congratulations on a super mag, the best of the bunch, as at the age of 52 I need all the help I can get, most of which I get from your mag. Please help if you can.

John Ball
Notts

Dear John,
As far as I can tell you seem to have done everything correctly. I would expect to see a DS0:Ndos when a NON diskspare disk is inserted into the drive.

I must restate that the instructions for diskspare are very, very clear and they work without problems. However if you don't understand what diskspare is doing then leave it alone until you do.

Once diskspare is mounted, shove a blank disk in the drive, and then you should get the DS0:Ndos icon. Click once on this and then format it in the normal way.

I think that you mean drag&drop rather than dropbox. The basic template is [LZX],[LZX x {c}]. However, this will extract into the drag and drop directory. It seems that LZX

and drag&drop don't like each other very much. It might be worth contacting the author of drag&drop, and seeing if the registered version can cope with this. In the meantime use the CLI to extract whatever you need.

Copy the archive and LZX into RAM: and then type LZX x archivename

You do not quite have an A500+ but it is fairly close.

COVERDISK

Dear AUI,
I am experiencing some problems with one of last month's SuperDisks, AUIJuly95c - Scorched Tanks V1.85. I unpacked it successfully, and got all excited because I'd heard a lot of good things about it. However, when I first tried it, I received an I/O error message after the credits. I disconnected my second disk drive, and that seemed to fix that problem. Now, after I've played a the first round, I receive an "I/O error" message. Can you tell me whether it is just me and my computer, or just the game? I own an A600 with an external disk drive, 1 MB upgrade and printer.

Also, I don't suppose you know a good flight sim that you can play two player without a serial link (i.e on the same computer). Failing that, could you recommend some good games that include a level editor and are two or more player, (preferably PD). I'm sorry to bother you with so much, but I'm a pretty inquisitive person.

Please print this letter in August, 95 because I'd like to know not long after my birthday, so I can play STV1.85 against my friends at my party. Maybe you could put some good multi-player games on the SuperDisk? I'm getting carried away, aren't I?!

Ian Griffiths.
Wolverhampton

Dear Ian,
I get the same result on a similar system to yours. This program is very memory hungry, and the documents do indicate that there may be problems with some machine configurations. You will have to contact the author if you want to take this any further.

Lunar lander is quite a good flight sim. I often see how big a crater I can make in the lunar surface. (Get my point, what I consider good is unlikely to be what you want. I don't answer subjective questions.)

Print in August! All I can do is wish you a belated happy birthday! Magazines work about 3 or 4 months ahead, so right now in July, as you see, I'm working on the answers for the November coverdated issue.

COVERDISK

Dear AUI,
I loved the 'Bootpics on AUI Coverdisk AUIJUN95b: The Workbench Essentials, unfortunately I cannot get these graphics to stay on the screen whilst WB3.0 OS executes in the background and the bootpic has to close before the OS carries on executing its startup sequence, which is not I'm sure the author's intentions of how bootpics originally should function.

I own an Amiga 1200 with a TV PAL monitor and therefore had to edit the bootpic in Deluxe Paint IV to fit my monitor.

I used DTVIEW as the iff/ILBM viewer and the tool type set on bootpic: wbench.floppy.3.0 was sys:utilities/DTVview.

Double clicking on the bootpic icon brings the image up on screen with no problems. Adding the command line DTVIEW -?? sys:utilities/floppy in the startup sequence and booting up also pastes the image on screen. However, while it displays on screen, in its unmistakeable technicolour glory, the startup sequence meanwhile has ground to a halt. Now I'm sure you'll agree that I have a tiny problem here.

The DTVIEW undoubtedly works so the real dilemma I fear lies with the startup sequence which will always wait for the viewer to be exited before carrying out its final command lines.

Is it possible to get round this process? And how soon can such a command be placed in the startup sequence script, so that the bootpics function as intended by its owner/creator as early as possible.

Karl Inclans
Leicester

Dear Karl,
Your problem is very very small, in fact it is three letters and a space! You have forgotten that the Amiga is a multitasking computer, all you need to do is start up the viewer as another process. You do this by preceding the command with the word RUN, so RUN ViewerName <options> is what you need to add to your startup sequence.

COVERDISK

Dear AUI,
This is a complaint. You have encouraged us to mount diskspare by praising its capabilities.

When it comes to your Coverdisks, boot disks (the odd numbered ones) are accessible from Workbench, however, the diskspare (even numbered) show

up as DS1:Ndos. This means that if we wish to access them we must do so using the boot disk.

Not all users are unsophisticated. Some of us wish to explore the use of LZX for partial retrieval. We can't do this with the system blocked with an Ndos boot block. What I would like is for this



practice to stop, and that one disk in the near future will provide a patch to allow free access to earlier disks.

It is a tedious business waiting for a full disk extraction when all we want is one program/drawer out of up to two dozen.

John Borland
London

Dear John,
Sorry I can't read your writing in the last part of your letter, it is something about a switched mode PSU and a ring main. Generally switched mode power units are no different to any other power unit in the final output. They do work on a different principle, but you don't need to worry about that.

Diskspare does what we want it to, and we will not change unless something much better comes along. We set the system up as we do, so that people such as yourself, who are not proficient in the use of the Amiga computer have as few problems as possible unarchiving the coverdisks.

No patches will be provided, as none are needed. There is nothing wrong with the bootblock, it is a standard disk block. The difference is that the disk is formatted using diskspare. When you get more experienced with the Amiga system, install diskspare onto your hard drive, and activate it when necessary. Once you do this, a diskspare disk will look just like any other Amiga disk. This is exactly what I have done, and I am able to read the diskspare disks as if they were normal AmigaDOS disks.

COVERDISK

Dear AUI,
I have an Amiga 600 with a 60mb hard drive and a 1 Meg expansion. I am working with Workbench 2.05. My first problem is that of Coverdisk No.62 with the HDoff

program. It seems to work fine with my Conner IDE drive. But I want to install it on to some of my games disks so it will switch the hard drive motor off immediately. I know that I can only do that on DOS games which have a startup-sequence in the S: directory. I can get it to switch off after about a minute or so by adding in:

DH0:c/HDOff 1

but by that time the game has loaded and interrupted it and it doesn't switch the drive off at all. The doc was poorly written and was too hard to understand. What I could make out of it is that you type in

DH0:c/HDOff now 1

but that sometimes works and sometimes doesn't. I am obviously doing something wrong.

My second problem is the speed of my A600. I need it to go faster. Is there any way to do this without upgrading to an A1200? I JUST DON'T HAVE THE MONEY!

And finally I borrowed a magazine disk off a friend, it wasn't AUI! SHOCK HORROR! Anyway it had a demo on it called Jet Strike. It said it was to be released on the 25th of November 1993. But I can't see it in any shops. Is it a PD game? Do you know where I could find it?

Andrew Fitzgerald
South Yorkshire

Dear Andrew,
How effective HDOFF is will depend on the programs being run. HDOFF will stop the hard drive in the time period set, AFTER the last access. If something keeps the drive alive, then HDOFF will not shut the drive down.

I disagree about the documentation, the HDOFF documents tell you very clearly the syntax and command options. I spotted one typo, a 20 minute shut down was referred to as a 30 minute shutdown.

Remember that hard drives are NOT designed to be continuously shut down, this will place a lot of strain on the motors. Hard drives are designed to be spun continuously.

An accelerator card is possible, but really it is not very cost effective. An A1200 is a better upgrade path especially if you want access to the AGA graphic modes.

I've never heard of Jet Strike, is it something to do with Spanish air traffic controllers? Sorry I can't help on this one. Try contacting the magazine from which the disk came.

HARDWARE

Dear AUI,
I have a CD32 to which I have added an SX-1 module with an additional 8

Meg RAM. The SX-1 User's Guide, referring to the back panel, mentions a DB25 Expansion Cutout which "allows you to add an SCSI interface card and neatly mount the connector on the back panel". When fitting the spare RAM I examined this and found it was just a hole covered with a metal plate. I could not see anything to which the SCSI interface card would attach. As I would like the benefits of SCSI, particularly the Squirrel attachment, I would appreciate an explanation of how this works.

Also I am considering getting an FMV module for the CD32 but the Guide says you can fit 8 meg without the module or only 4 Meg with it. This is confusing. Does it mean that the FMV device physically sits across the RAM connector blocking part of it, or that if you use 8 Megs, the FMV will use 4 Meg to run only leaving you 4 Meg for use?

Jim Morrison
Glasgow

Dear Jim,
Well, I've never seen a SCSI attachment for the SX1, so I can't comment on how any such attachment will work on the SX1. The FMV unit will occupy the address space that the second 4Mb bank would occupy.

One other thing that I can state, is that the Squirrel interface plugs into the PCMCIA slot, the SX1 does not have such a slot so the Squirrel will not work on the SX1.

HARDWARE

Dear AUI,
I own an A 1200 with Workbench 3.0, 127Mb hard drive, 4Mb RAM expansion, and Citizen 200c printer.

My problem is this. I just recently purchased a Hawk 4Mb RAM board with battery-backed clock. Having been almost at breaking point trying to slot the damn thing into the trapdoor slot, I now find I have a problem with the clock.

Once I'd checked that the board had been installed correctly, using the disk that came with it, I then set about setting the time/date etc. in Workbench:Prefs, as I was fed up with evening being set at 2 Sep 1992! Great, even had the little clock in the corner of the screen, gazing at it intently, so pleased was I that I'd got a real clock. Oh well, little things.

The problem is that the battery don't seem to work! When I switch off and switch on again the clock is still showing the time and date as were when the power went off, if that makes sense!

I followed, as best I could, the instructions regarding earthing etc. when installing the board, but am

reluctant to take it back in case it's something nerdy I'm doing/not doing. Is it me?

Stewart Brough
London

Dear Stewart,

There seems little reason for the trouble you are having with your clock. Clocks are essentially very simple things, and apart from faulty units they tend to work without a hitch. A few things you can try. Check for any jumpers that need to be set up. Quite often the battery is left disconnected

during storage.

It is possible for clocks to get corrupted by rogue programs. Use the CLI command SETCLOCK OPT RESET. This will get the clock back to a known working state. Then set up the clock, and remember to enter SETCLOCK OPT SAVE. The command SETCLOCK OPT LOAD will set the normal Amiga clock from the real time clock. You can enter this command into your User-startup is necessary.

If you cannot get the clock working then it is probably faulty. AUI



When writing to Amiga Answers please include as much information as possible about your system and about which software/hardware you are running. This will help determine what your problem might be and its solution!

Send your questions to:

Amiga Answers, Amiga User International
Carriage Row, 203 Eversholt Street,
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Write to Reply

Bud Vennos? He's the guy who retreats into the background when the readers take the stand...If you believe that you'll believe anything.

Dear *AUI*

With the launch of Windows '95, and Bill Gates' rise through the ranks of "Richest Person", I would like to bend your ear, with the help of an article in the Telegraph, about the whole windows business. The article appeared on Thursday August 24th and I think it sums up the whole caboodle quite well.

The article starts off by saying:- "...most people can't explain what it is or what it does, and those who can regard it as inferior to what has been available for years from rivals such as Apple and Acorn..." This shows that, with all due respect to the selling power of Gates and Microsoft, that this is a case of "When Biggest Isn't Best!". I'm sick to the back teeth of all the press/media/friends ramming Multitasking down my throat.

Hasn't any of the PC world noticed that Commodore/Apple/Acorn have been doing what they regard as a new thing, for over a decade?!

Sure, if Gates has the will and expertise, he has every right in the free market to power on with his inferior technology, but as the article says:- "...the whole business is an instructive lesson in how the free market does not necessarily deliver the best for the consumer..." The launch of Windows '95 was shown on the CNN News Channel on Sky, and there with the reporter was the editor of PC World Magazine, who stated that the

"new" operating system was, quite honestly, not up to scratch, and for a member of the computing world who makes his living from PCs, that is a very scathing view of the whole Microsoft product.

Also, have the PC owners of the world who think that this is a good thing to be brought out:- "...Windows '95 requires top of the range hardware to fulfil its potential...owners will have to upgrade their machines or buy new ones...To take advantage of Windows '95's strengths, many users will also have to fork out to upgrade existing software and invest in more computing muscle..." and like lambs to the slaughter, many of them will, leaving more profits to Mr. Gates so he can laugh his way to the bank!

To finish off, I think that the last paragraph of the article sums up quite nicely:- "Windows '95 is only the latest in a long, miserable tradition of make do and mend subsystems, cobbled up to compensate for past mistakes. Like the universal electric plug, the perfect computer is as far away as ever..."

(Obviously the writer did not have an Amiga to hand, although not perfect, it's getting closer than a PC)

...Multitasking...Hmmm... I remember when all this was fields!

Matthew James Scott
Manchester

Dear Matthew,

You and the Editor seem to agree. ("Great minds think alike" and all that sort of sucking up that you have to do to get a rise in salary in this place). And The Daily Telegraph agrees too? That doesn't surprise me - for some time I have suspected that *AUI* is paid large sums by the Conservative Party to employ people like Anthony Mael who are known to work for MI5 and send Michael Portillo and other Right Wing organisations, based at the Ministry of Defence and Pensions, information on the secret activities of the Amiga Party, led by that dangerous radical Tony Blah.

Yes, Our Editor, as you will see in this *AUI*, has come out of the closet and on your side. He has written what we totally unbiased employees of his call a penetrating study of unrivalled incisiveness that cuts through to heart of the Microsoft/Windows 95 affair with brilliant wit, style and erudition.

Well, someone needed to, don't you think? After all that astonishing hyperbole that was lavished on what you accurately depict as mediocre upgrade to a pretty clumsy operating system. It ill-behoves me, I was with Mao Tse Tung on the Long March in the Thirties that enabled us set up such a democratic system in China, to agree with The Splenetic Chronicle - sorry, The Daily Telegraph - but every word you quote of theirs is right on the button. (Are you sure it was The Geriatric Chronicle you were reading?)

We are subjected these days to such a bombardment of commercially-based propaganda that Microsoft's skilled handling of the way they have built up the image of themselves, Bill Gates and Windows 95 is not something new but just a peak in this process.

We will doubtless see further examples of this kind of global marketing from rich, heavily overpowerful organisations like Disney which is now the biggest entertainment company in the world. I'm not sure that I don't prefer even Windows 95 to some of the awful possibilities that face us from the global dimension that the Disney Corporation might pull off now that it controls major TV networks as well as all its other entertainment interests. A Mickey Mouse world indeed... But still I've never cared much for cartoons since I suggested, on leaving the cinema at the age of seven, the best use for Bambi's mother was venison sausages and got beaten up by all the other misty eyed sentimentalists in the Borstal boys group I was temporarily sharing the safari hotel with at the time.

What galls most of us, clearly including you, is the crass ignorance of 99.99% of the population of just how clumsy the whole PC architecture has always been and that the absolutely splendid, amazing, flabbergasting wonders of Windows 95 have largely been quietly available on the Amiga, and the other machines you mention, for yonks and yonks but without anyone buying the Murdoch Times to tell them so..

But then most of the world thought - and probably secretly thinks to this day - that the world is flat. Especially Daily Telegeriatric readers even if in this case they have been correctly informed otherwise.

Still Matthew James, you are unquestionably a strong minded sensible person with good judgement for everything you say about this unhappy affair makes perfect sense. Just one question, how have you remained such a clear minded human being reading the newspaper that you do? Perhaps you just read the technology bits and the sport..

CONTINUED ON PAGE 112



Artificial...



Paul Hamilton is a 22 year old artist using the Amiga to create unusual pictures. An animator and illustrator, he is now having his first solo exhibition.

He started out with the old reliable, an A500 but for the last two years he has graduated to an A4000/ECO30 with ten megs of memory. He has used, for the pictures shown here, Photogenics, Real 3D and DPaint IV, though, he

hastens to add, not necessarily all three at once.

He has also written three PD games including - he says it - "the abysmal Thrust Duel clone" and the still unreleased Pope versus Pope. He claims to have achieved a measure of notoriety as the author of the Valhalla dance remix, It's a Skull. He's currently seeking finance for an experimental animation film about dreams.



You may still have time to see Paul Hamilton's exhibition, called Artificial Eyes, which is held in the Reflections Gallery at the Exeter and Devon Arts Centre, Gandy Street, Exeter from 4th October to 28th October. Admission is free, so why not go along and give Paul Hamilton some Amiga support?

It is the first computer graphics exhibition held in Exeter and possibly in Devon too. **AUI**

...Eyes

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TURBO TRAX

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Some like to use their large, red, bright, shiny car as a priapic extension, "Mine's bigger than yours and I'm not bragging!" and they drive it as hard and fast to as many places as possible. Sadly in my case the day after passing my test I had my Damon Hill fantasies buried in front of a carfull of friends after being stopped and reprimanded by the police for driving too slowly. And soon after was deeply affected by the film 'Faster Pussycat, Kill, Kill, Kill', in which three bra-busting Russ Meyer vixens first challenge, race and beat a guy showing off his new sports car on the Californian desert flats. And, as if that weren't humiliating enough, they then beat him up and kill him with their bare hands, in front of his girlfriend. So watch it, road ragers!

Racing simulations like the new Turbo Trax game from Kompart offer the opportunity to exorcise any stunted and perverted racing driver ambitions with the privacy and safety of your Amiga. Here you can roadhog it all you like without the danger of meeting up with macho or vixenish trouble.

Turbo Trax doesn't offer any marvellously new revolutionary concepts in game-playing - it's a traditional, bird's-eye view racing game - but as far as this kind of tyrescreaming entertainment, goes it is very slickly done, with very smooth scrolling, highly-detailed



Fine tune your car in a garage so clean you could eat your dinner off the floor!

graphics and realistic sound effects.

There's a choice of five racing terrains, with five track layouts for each terrain. You can race on the slippery, snow covered ice track, the Indy car racetrack, in the middle of a boulder-strewn and palm-tree dotted desert, a muddy forest or around British city streets. And there are five types of vehicle to race in: the aerodynamic Indy car, the 4-wheel drive truck, a jeep, a dune buggy or a sports car.

And that's more or less it. No sophisticated post-race psychological showdowns, tactical debriefings or champagne showers. Just zoom round the track as

fast as you can trying to keep ahead of the other cars, with the raging scream of the engine rising as you accelerate down the straights, and the piercing screech of the tyres shivering your nerves round the hairpin bends.

As you career around the track, clinging desperately on to control with your fingertips, there are various special features to look out for such as oil-patches, bumps and black ice which can throw you out of control momentarily, costing crucial split-seconds.

The magic spanners littered on the tarmac cause any damage you have sustained to be instantly repaired. And running over the 'turbo' objects gives you a sudden burst of speed, essential if you are to beat the other five computer controlled cars. Negotiating these objects on the road well is the key to winning races, rather than just accelerating as much as possible.

To be honest Turbo Trax is more like a radio-controlled car than a real race-car simulation. The only controls are left, right and accelerate. But given the limitations of the joystick-control and bird's-eye view format, Turbo Trax very effectively builds up the tension and atmosphere of a breakneck speed road race. The sounds of the cars in particular, different depending which vehicle you are using, change realistically as you accelerate and corner. And

the rival cars weave and bunch convincingly.

There is a minimal strategic side to Turbo Trax, as it's possible to soup-up your car by buying new parts with money tokens you have run over on the track and any race winnings. And without buying extra power-steering, a new engine and better tyres there is not much chance of getting through the progressively tougher levels of Turbo Trax to reach the final one-to-one race-off.

From the start the game is hard on learners, the computer cars race fast and nasty from the first level and always seem to come out on top from any wheel-banging incidents. But this does make it more satisfying to beat them.

Unfortunately we didn't have two A1200s in the office at the time to test out the link-up option which lets you connect two computers to race against a human opponent. Not many people do, without lugging their computers round to a friend's house. A simultaneous one-machine two player option is lacking; the game can become slightly tedious after continuous playing against the computer. Another minor niggle was the somewhat monotonous track layout - the straights are always horizontal or vertical. But for a quick race around the streets, maybe after creeping home in a traffic jam, this is one of the slickest sims around.

Apparently the late Formula 1 world champion James Hunt was an avid budgerigar-breeder in his spare time. But for anyone with a more sedentary, less macho day-job, Turbo Trax should happily fill a few hours of leisure.

VERDICT

Graphics:	80%
Sound:	90%
Gameplay:	75%
Overall:	80%



Streak around a slick urban landscape.

"can you beat the West Indies . . . ?"
" . . . Just give it you're best shot!"

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AMIGA
A500, A600, A1200, A3000, A4000
Minimum 1 Meg Required
Workbench 1.2, 1.3 & 2.0 Compatible

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SUBVERSION

Guildhall Leisure Services £7.95

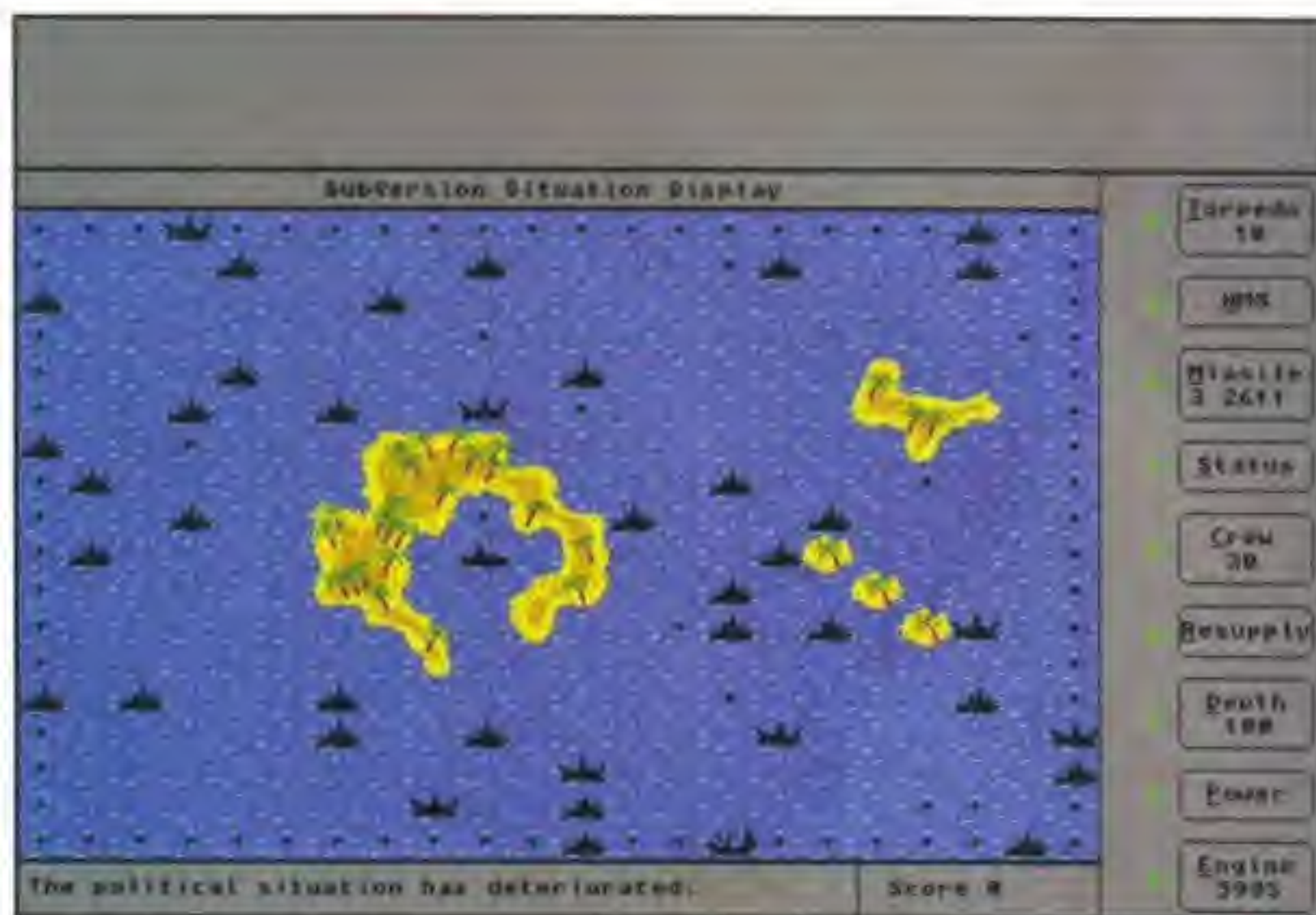
Look, it's a submarine game. Oh, look at that packaging. All brooding, moody and ominous. Big fat awesome submarine gliding past the cover. Just imagine the scene... radar bleeping, echoing through the cold tension-filled steel chamber. The captain sweating as destroyers hunt the sub down, armed with depth charges. Imagine spying the enemy cruising in the distance. Release a torpedo - watch it race towards the target. Kaboom! The ship slips rapidly beneath the waves. Disappear back into the gloomy depths before the enemy have a chance to counter-attack. Whew! All that for £7.95?

Well, no actually. All that for multi-million pound naval

simulators. For £7.95 you get an ancient game converted from an even older Apple entertainment which registers practically zilch on the impressiveness scale.

Your submarine icon appears on a depiction of the sea, dotted with islands and enemy shipping. Select the direction - move the icon. Aim torpedos and missiles at the fools attacking your supply ships. Next turn will see them closing in on your sub. Oooh, I'm slightly nervous. No, not a patch on the other games in the series, but mildly challenging for a short period of time.

It didn't work on our A1200's, and on the A500 had the bottom of the screen chopped off - preventing you from reaching



The strategy element of Subversion is low. So are the graphics, gameplay, and everything else.

some of the operation buttons which would have been there. There was no sound. Be warned.

At this budget price, if it works on your Amiga it's still cheaper than any other form of entertainment that costs money, but you may be extremely disappointed nonetheless.

VERDICT

Graphics:	30%
Sound:	0%
Gameplay:	38%
Overall:	30%

Blitzreig - Battle at Ardennes White Death - Battle for Velikiya

Guildhall Leisure Services £7.95

One of my first-ever strategy war games came from the stable of Command Simulations. I forget the name now, but it covered the whole of the war in Europe and took the game-board approach used by war-gamers. This format lays a grid of tiny hexagons over a map. Each unit can move over fields, through forest etc, by moving a certain number of hexagons. Battles occur when opposing units meet and attack, with the outcome being decided on a mixture of relative strengths and random factors.

These two games - Blitzreig and White Death - take that same approach, but concentrate the action on smaller geographical areas. Just as much action and strategy takes place as in the large scale games because the area map is divided into even smaller hexagons.

Both games take real life battles from World War Two. Blitzreig, literally the German for Lightning War - a quick smashing through of the enemy lines with fast moving tanks and motorised support - focusses on a key battle after the successful Allied sweep through Europe after D-Day, when Germany attempted to break through the front line and thrust on to to Antwerp.

White Death is set in the bitterly cold climate of the Eastern front - at a time when the Soviets were beginning to make ground in their fight back.

All the military resources, front lines and unit strengths for both battles have been meticulously researched and recreated in the respective games.

Simulations require as many real-life elements as possible.

Consequently, even the weather, randomly generated, changes and affects your plans. Your troops tire. Their morale and skills change and losses mount depending on the type of attack they are enduring or making.

Action revolves around turn-orientated planning. Your first turn allows you to move units, reinforce, shape the beginning of attacks and such-like. Each unit is limited in its range per turn by factors such as transport and terrain. Then the opposition, the computer or a human player, moves their troops. Then it's your turn, and the action hots up.

Rather than an overall objective like "Win the war", these games concentrate on small scale objectives such as capturing towns or winning tactical advantage. Which is how real

wars are generally fought.

A number of different scenarios recreate various moments in the real campaign. If, for example, the Germans were surrounded and smashed on the last day of the campaign, you could take over from that point and try to extricate them from the predicament.

The accompanying manuals explain everything in fine detail, but omit the big point - like a readily understandable explanation of what the hell is going on. You'll need to persevere a little, especially through the wargame-speak, but the way both games test your military and tactical planning, as well as cunning and guile, means the effort pays off in a big way, in other words, the soaking up of squillions of hours in front of your Amiga's screen.

VERDICT

Graphics:	60%
Sound:	46%
Gameplay:	78%
Overall:	74%

OBSESSION



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Bravo Romeo Delta

Guildhall Leisure Services £7.95



Live out the nuclear nightmare scenarios that were once realistically contemplated.

Even if they never went away, strategy games are back... Hugely popular programs like Sim City 2000 and Colonisation have revealed that computer users will lap up well designed software which requires them to apply time, intelligence, wit and planning to 'win'.

It's not only the players who must devote time and mind power to completing strategy games - the programmers are given a task far more challenging than regular games. The concept has to be well-developed and believable, and the environment must mimic the real world as much as possible - with a enormous number of

options and outcomes.

The graphics don't need to be impressive. Essentially they need only 'represent' the units which you move around the world. The player's imagination and involvement in the game's complexity do the work. Because the key to a good strategy game is the complexity and real life event-simulation, the games don't really date as long as the coding is solid.

That principle is probably driving Guildhall Leisure's Strategy Series of budget price games which by and large deliver complex and engrossing military simulations despite their old age.

It must be stressed that in-depth

strategy games are not instantly gratifying like a shoot-em-up. They are more like chess games played with hundreds of pieces. You need time, patience and some substantial mental effort to maximise the entertainment.

A point to note about reviews of strategy games. They're almost always way down on scores rating the graphics and sound content - but gameplay can be massively high.

Cold War computer games in which you played one of the superpowers trying to win a nuclear war are a chilling reminder of the insanity which we took as normality for too many decades.

that appropriately named condition MAD - Mutually Assured Destruction.

Bravo looks a little dated, but like all great strategy games its playability remains high. Once you learn your way around the control screens and fire off those silent salvos, then watch the waves of counter attacks, the game pulls you in.

The exchange occurs in real time - a clock counts the passing minutes. Your Amiga becomes the central military computer of a nation on nuclear alert.

I can't believe we realistically contemplated such possibilities. Fortunately, the world may be



An awesome arsenal on monstrous missiles.

However, there is something frighteningly exciting about playing a game like Bravo, in which you manage the nuclear attack or reaction of a superpower in a nuclear conflict.

The awesome power contained within your arsenal of monstrous missiles is all too clear as you examine their payload, range, and possible trajectory. Then, via one of the three control screens, you turn to a map of the opposition country - America or the USSR. You search through a list of possible targets, examining their military capacity - a first strike must eliminate the power of a counter-strike or potential for civilian devastation. Otherwise you get

emerging from the dangerous, but necessary, path of learning through our discovery of nuclear power. Bravo Romeo Delta allows you to complete the horror scenario. You'll soon discover, except in computer games, in such a real life scenario no one can really win.



Complete the horror scenario.

VERDICT

Graphics:	58%
Sound:	37%
Gameplay:	77%
Overall:	70%

THE PD STAKEOUT

Scoring

The marks awarded to each PD disk are based purely upon its own merits and, of course, our personal views. Value for money and reliability are also taken into account as well as features and quality of the software.

Compatibility

The PD disks reviewed in this issue were tested on an A1200 with a basic 2 megs of chip RAM. Check with your PD supplier that the disks you are ordering are compatible with your Amiga.

PD or ShareWare?

All freely distributable software comes under the rather deceptive umbrella of "public domain". Quite a lot of this software is, in fact, shareware. Shareware means that if you like the software, or use it fairly regularly, the author will request a reasonable donation from £5 to £20. There is usually a note on the disk informing you if the software is shareware or regular PD.

Whether or not you send a donation to the author depends totally upon your level of conscience and morals. Remember, if you send a donation to the author, you may receive an updated version of the software. Even if you don't receive an update, you will have given the author the incentive to continue contributing into the public domain.

Multivision 9 Multivision 10

Seasoft

I love utility disks - loads of practically indispensable programs that make things possible you may have always wished for, or never thought likely to be able to do.

The strange thing with MultiVision 9 is that the utilities essentially overlap. Ultimately you only need one of them - ArtPRO - a PD version which mimics the wonderful AdPRO.

ArtPRO has been extremely well designed and implemented.

This month it's Mad Mark Blackham and Mad Mike Rumbelow,
Amiga rodeo riders, ranging far and very wide
over the most tangy of the public domain and
shareware you could want to stakeout. If you see
them coming better step aside,
a lot of men didn't and a lot of men died.

ArtPRO cannot currently beat AdPro's incredible number of file formats and methods of image processing, but with continued development could do very well. However, this ArtPRO is a restricted version, so it's missing bits and pieces. Some of these may be compensated by the inclusion of some other utilities on the disk.

GiffToIFF converts the PC favourite (not for much longer since some company got bolshie over rights) Giff picture format to the Amiga favourite IFF.

There's a Chip RAM grabber for searching chip memory and saving any pictures you find there. These progs have never worked for me - as you can see by the picture here.

GfxCon allows you to convert graphic files (but not to view them) from a pile of formats to ILBM, PCX, GIF, JPEG, RGB-Raw(?) and PostScript. Very slickly done and useful.

D-Pix helps clean up black and

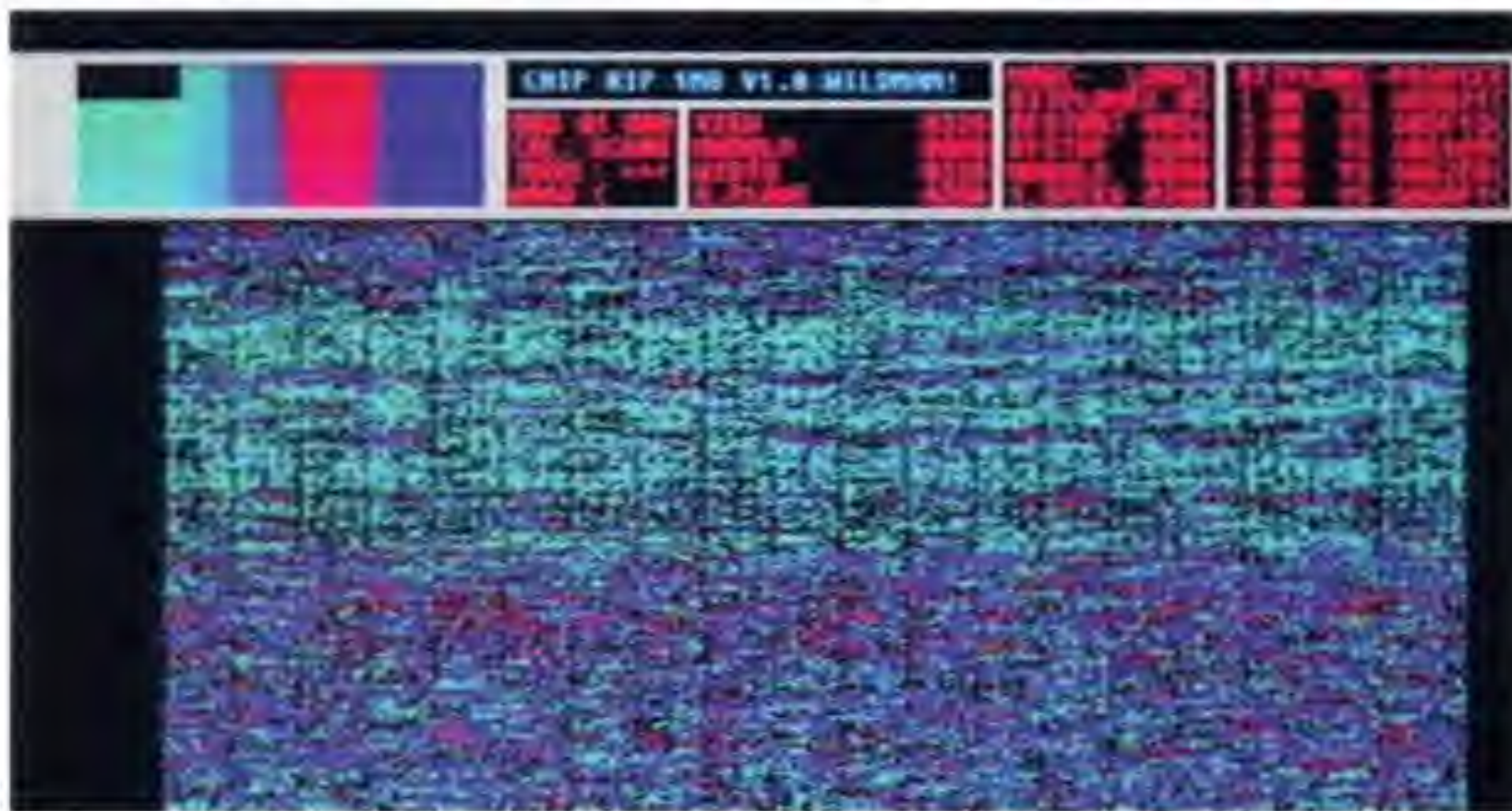
white clip art which has become slightly corrupted or jagged. Best applied when you've scaled up a pic, seen it go terribly jaggy and need to smooth the line edges. This too is a restricted version which didn't appear to work all that well.

Multi Vision 10 holds a programmer's utility to convert IFF pics to RAW: the standard format for the Amiga's actual hardware (i.e. doesn't need an interpreter to understand the data and form it into a pic).

IFF_FX is a simple utility which enables you to fiddle with IFF pics. A bit unnecessary if you have any sort of decent image processing package - and who doesn't?

Flick FLI is a far more useful kettle of data for those wanting to view animations constructed on a PC with Autodesk Animator and 3D Studio. Handy, but since I don't have such animations, I can't tell you if it works. It does appear to run in a number of different screen modes and claims to be compatible with graphic cards - these are bound to be useful features.

JIV is yet another picture viewer, claiming it has all those twiddly bits and pieces which you know you need and is missing from every other viewing utility. It is, nonetheless, pretty darn powerful and flexible, and will surely be able to meet almost everyone's viewing requirements.



78%

OFFICE HELPER

Seasoft

One of the most useful benefits of a home computer is the ability to organise your personal finances. The computer can't do this on its own - it needs the right software. Some of this stuff can be expen-

sive and OTT for your possibly restricted requirements.

That's where a compilation like Office Helper comes in. Four very well constructed small programs are included; AmigaDiary - not too brilliant but a simple way to organising things if your life isn't too

eventful, Intra2.16 - a database to keep track of invoices, QuickFile - an exceptional flat-file database equipped with super powerful search facilities and multi-column label printing, and FHSspread - a basic spreadsheet boasting a simple graphing feature.

Not a stunning selection, but Intra and QuickFile are probably among the best acquisitions of this sort you could make at PD prices.

75%

V12-PD

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V12-PD now offer a trade in service whereby you can trade your old commercial games for PD disks, we then resell these at very low prices, loads in stock, see catdisk. Ain't we clever? Oh yes we are!

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It'll soon be Christmas, ooh, I can't wait! But anyway, here's our new ad, and what a good ad it is. It eats all it's greens, goes to bed on time, and even does all the dishes. It's here to tell you what a superb PD Library V12-PD is! And it's so good, it can't be lying!

For a start, I'll tell you our prices, and this will just blow your minds, our 'the world's taking us for a ride and we're stupid to sell PD at these prices' are:

1-5 disks – 65p each
6-9 disks – 60p each
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Ok, just compare that with any of the PD adverts in this issue of AUI, is there any other that even comes close to these prices? No, there blummin' isn't missus! What about our catdisk, it's 2 disks, has loads of free games on it, optional RAM installation for utilities or full files, animation, music, more titles than you've ever seen, all descriptions written from scratch by us after our own testing, and the best bit, it's only 50p! A 2 disk catalogue for 50p? Where else would you get this? Just check through all the lib. . . oh, just take our word for it, nowhere else!

Membership is available for peeps wanting to commit to our superb library. For only £5 you'll get twelve catdisks automatically sent to you the day they're completed, that's a whole year without having to bother about sending for new catdisks, it's 24 disks for a fiver! Or, you can become a platinum member, this is £15 a year, which entitles you to not only the twelve months of catdisks, but 10% off titles, (that's PD at 45p a disk!), and 30% of any blanks bought as PD for 10p each, WOW! Where else would you get these offers, just flip. . . AAAGH! Nowhere else, OK? We're unique, way ahead of the same ol' "clone" PD libraries. Oh yes, we're a bit spesh, 10 out of 10 people who were asked will express a preference for us if we pay them to do so.

Apart from that, there's the software trade in. If you have a commercial game that you're sick of, then we'll swap it for some PD disks, and then sell it very cheaply to someone who'll get more joy out of it. We already have a stack of games in, including Waxworks, Cruise for a Corpse, F29, Formula One Grand Prix, Dpaint 3, and 50+ more, all boxed originals. Get in touch with us with info on any games you want, or want to trade in. Who else does this, ju. . .

Anyway, if you want a catdisk, send 50p or 2 1st class stamps for it, please remember to tell us what AMIGA you're using though, as this makes a big difference. So, go for it, either try us out, or carry on paying £1+ for PD, it's up to you, but I'd rather have twice the amount of disks for my money, but maybe that's just me being silly!

Greetings go out to: Visage Computers, Wolfman, Phil + Alexis at Northstaffs PD (Hi again!), Rob Daviau in Canada, Stefan Mansier in Holland, Paul Hamilton, Mike Carter, Robert Wilkins and all our mates in the Amiga industry! Careless Whispers 2 is not out!!!! Hi Mum!

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ARUG, AMIGAN, NZUG, JAM, BARBIE, CHINA GIRL, GRAPEVINE,
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8000+ Titles, that's more than a library with less than that!

Disk Helper 9 Disk Helper 10

Seasoft

A bunch of tidy utilities with virtually no central theme which pulls them together. They're a motley assortment.

Helper 9 has a healthy bunch of utilities such as one which will find the files that best fit the directory/disk to which you're copying, another which displays the date and time (never seen one of them before!), a programming utility to edit hex code, a RAM clearer (actually quite useful), and a cool American program that generate DIY legal forms.

There's also a great MultiView-like program which you build up yourself to recognise and enact all sorts of files, and a handy program which copies large numbers of files from hard disk to multiple floppies.

The utility you'll really want to use, but dread seeing the result of is WastedTime - which measures the time you spend on the Amiga and can calculate how that works out in monetary values that you can decide. It could actually be very helpful for freelancers charging for time spent on work, or attempting to reconcile their job charges with the time they actually spent.

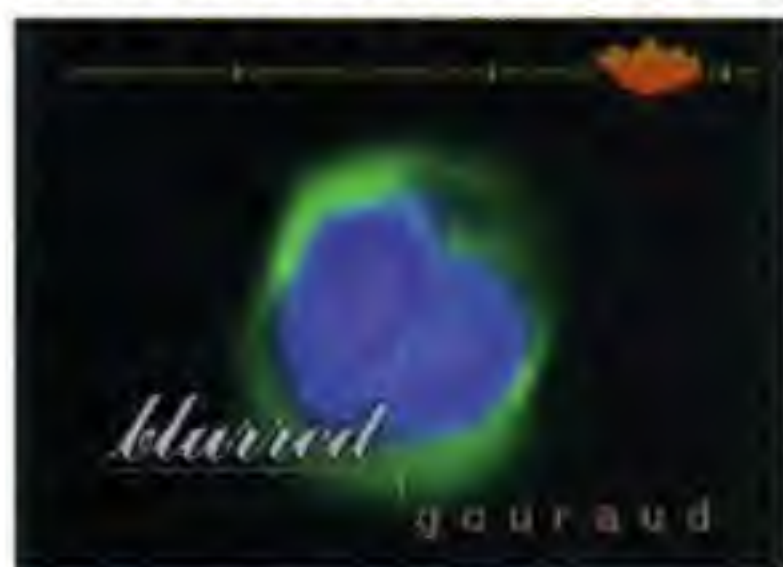
On Helper 10 there's a program which searches for crunched files, another which enables you to save CD32 games to disk, the regular AGA-kill type prog, a bizarre software keyboard, and a list of viruses. Hmmmm. I'd probably live through tomorrow without this lot.

75%

Assassin 244 Assassin 245 Assassin 246

Seasoft

Another collection of Assassin disks, another collection of first-attempt games - almost universally based. The Bomber clone is a beauty, but it barely makes up for PacWars and the good concept but what the hell is going on game, Stench. Appropriately, since it



involves toilets, the game is crap.

ASI 243 has two winners - a strange mind game matching coloured glass balls, and a two-player tank pitched battle with bouncing missiles. Not bad for some mild amusement.

ASI 240 is held aloft by Catapults, a two player castle building and opponent crushing mayhem. Well designed, and it

Hippoplayer is a very comprehensive and efficient music module player by K-P. Koljonen, with lots of interesting little extra features which set it slightly above the average mod-player.

Apart from the standard play, stop, next module buttons and on-



screen volume slider control, there is also a 'prefs' button that brings up an option-crammed screen. Here you can choose whether to repeat one module, play through a list of them or timeout, and you can also choose from four different kinds of graphic scopes, from four-channel oscilloscope, to graphic equaliser, to special 'hipposcope' which creates four small patterns

Planet M Baygon



Freestyle PD

Demoland is sometimes a very wonderful place. Witness these two outrageously excellent pieces of stylish art from Melon.

Planet M begins with an incredible exploding Melon logo, then a fantastic real and mock moving video of female faces shot in stylish black and white.

After a rather incautious and unfunny piece of sexism the demo bursts into a riot of colour and street-style graphics, matched with some pacey trance music.

The music in Melon's other, and even better demo, Baygon, grabs you by the funky bits just after a piece of wierdo Frenchy animation.

The rap samples whirl you through a hypnotic journey of super-cool spirally shapes and

plays nicely.

Super Daleks is that ancient game where you move one space towards safety and Daleks move five spaces to intercept you. Rubbish.

Mutar is a singular piece of

colours, hip black and white animation and street-smart graphics. Slices of Baygon would not look out of place in an MTV video or youth-orientated advertisement.

Style is the only word for these two demos. The graphic trickery is fine, but the way it is implemented - gorgeous colours, wonderfully chosen images - just blows you away. Nothing short of fantastic.

These guys have a knack for design - and that's the key to advancing further into the world of computer graphics. The machinery can do the calculations and whizzo tricks for you, but how to best apply them and make them look appealing. Melon know how - and that will see them go far. Get these demos and see cool.

89%

beat-the-clock-through-the-maze boredom. So you'd better enjoy Catapult on this disk or you're stuffed.

83%

HIPPOPLAYER V2.08

Pixel Digital

which swirl in time to the music.

One other novel aspect of Hippoplayer is the range of filter effects. As well as a stereo effect slider adjustable from 0 to 100% there is also a 'real surround' sound feature, presumably an extreme version of stereo, in addition to the bog-standard 'surround' and 'stereo' sound features, and a 14-bit sound option, though it beats

me how it gets 14-bit sound out of 8-bit samples.

Koljonen claims he wrote Hippoplayer because of the dearth of module players which would run on Kickstart 1.3 machines. This one should run on any machine and accepts most module and compression formats. An excellent utility for anyone who likes playing mods, with enough options, knobs and sliders to twiddle to perk up the interest of even the most jaded mod-player user.

82%

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Sauce 'n' code 2

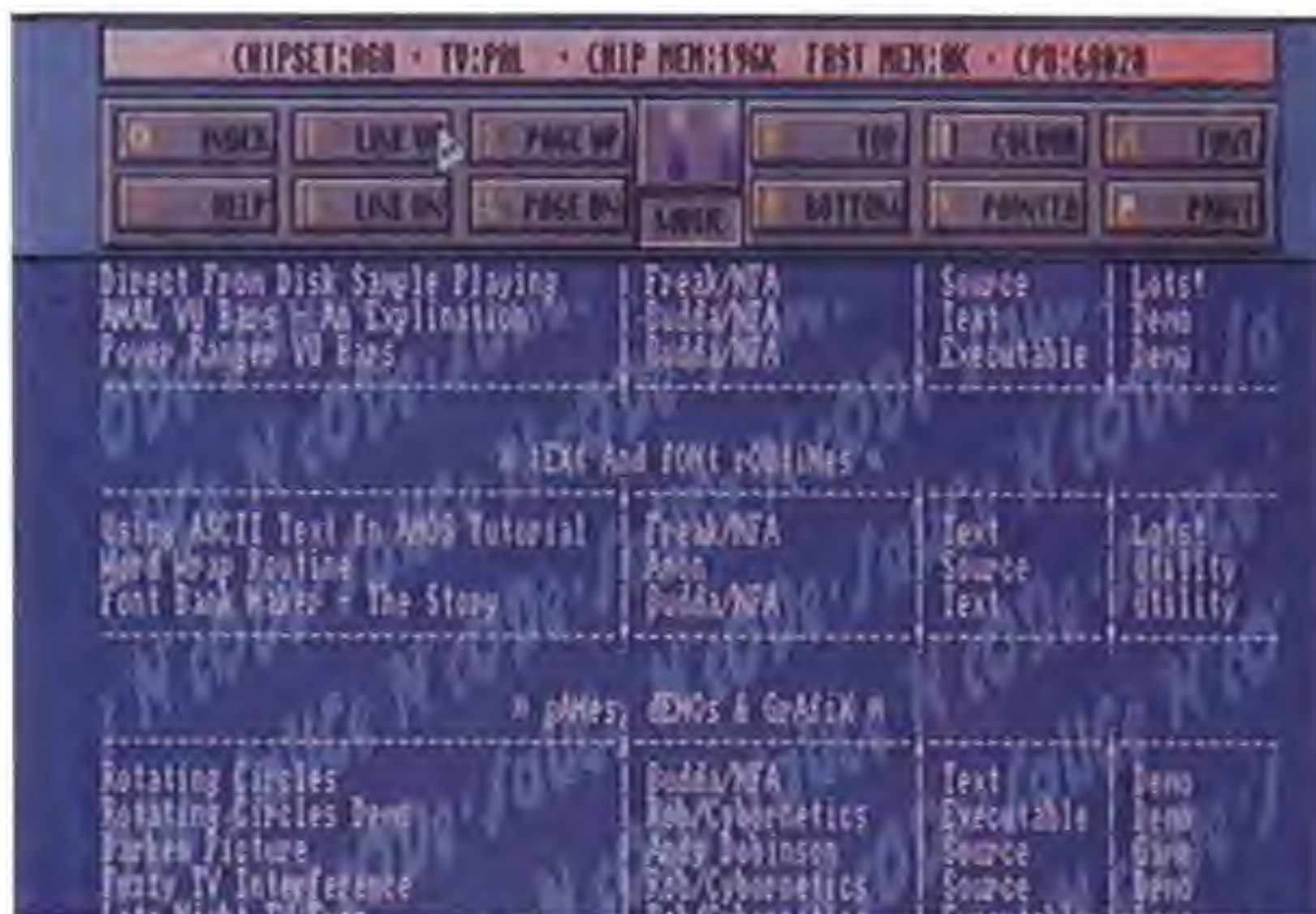
Pixel Digital

Sauce'n'code is very well-balanced, diverse collection of tips and examples for AMOS programmers, who must now count as some of the best supported users of an unavailable product around, all in the PD. This disk contains AMOS programs like a direct-from-disk sampler, various demo graphics effects, utilities such as a workbench 3 imitator and disk copier,

with a few illuminating text files and background music modules as well, all presented via a simple, efficient clickable menu.

For instance, you can read about the rotating circles effect program, then simply click on it to see it run. Most of the programs also include the AMOS source code so you can tinker with them yourself.

Another prime example of the



extraordinary health of the Amiga AMOS programming scene, despite the apparently gloomy prognosis.

81%

ASSEMBLY INTROS

Pixel Digital

Scandinavia has always been a stronghold of Amiga programming talent, particularly music and graphics demo-wise. Scala are based in Norway and Teijo Kinnunen, the author of OctaMED is from Finland, for example. It's

also a source of some of the most ethereal and abstract ambiental electronic music LPs as well. Perhaps something to do with spending months on end in blackness and watching the Northern Lights on a regular basis.

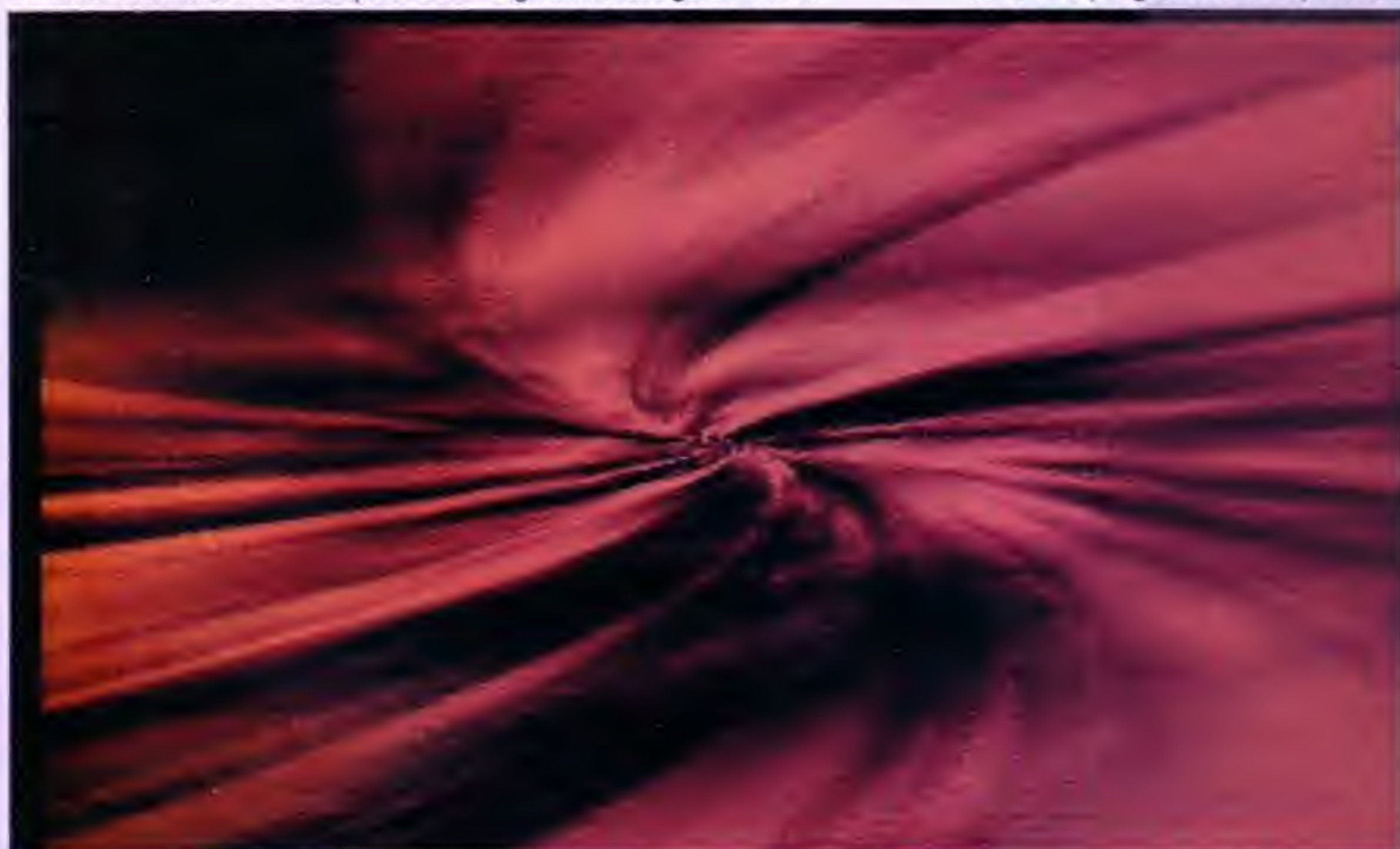
So fittingly there was a celebration of Amiga talent this year in the form of Assembly 95, a convention of underground Amiga assembly programmers, held in Helsinki, Finland. This disk is a selection of some of the best entries in the '40k and under' section, the programmers equivalent

of a welterweight contest. These are 'intros' as opposed to full-blown demos, though with some of them it's hard to tell the difference; it's incredible what some people can do with graphics and music in just 40k.

There are some set-pieces in demos like these, some would say cliches, like zooming in and out of a rotating picture, particularly a fractal, and for some reason spinning doughnuts seem to crop up very frequently. In a way these offer a benchmark for comparing different programmers, though personally I prefer some scintillating abstract textures and organically evolving shapes myself. A good effect can be like a certain tune or chord in a piece of music, sending tingles down the spine. 'Mission' and 'Blur' were particular highlights of the dozen or so intros on offer.

It's hard to say who the audience is for these intros, which fall somewhere between animations and music videos. Many of these programmers probably end up doing it for the fun of it and for a tight-knit underground group of other programmers who can appreciate the technical accomplishment behind the aesthetic visual effects, but the skill and imagination put into creating these few seconds of visual acrobatics really deserves a bigger audience.

87%





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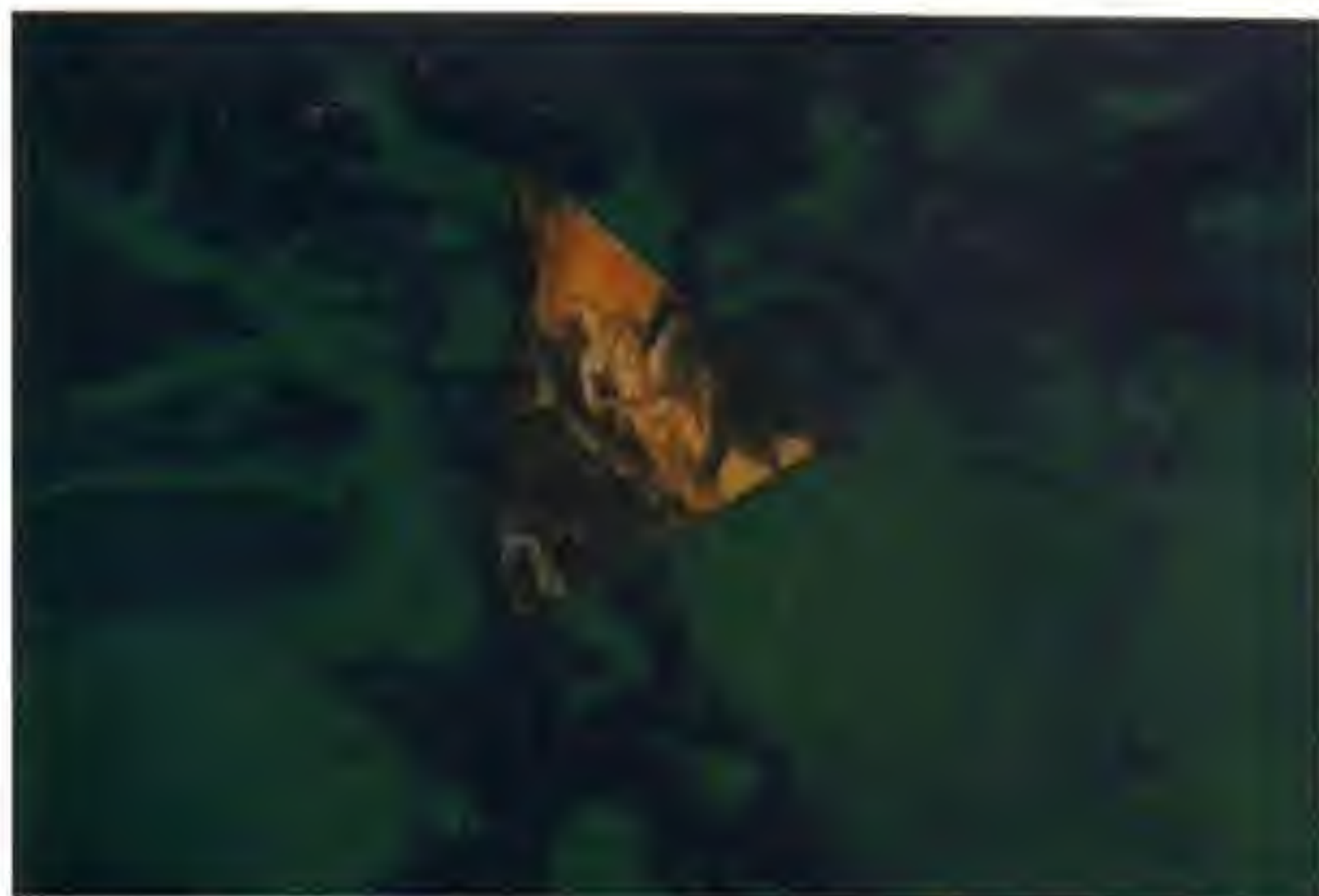
(4 Disks)

Pixel Digital

Axis are the organisation of programmers and artists who last year came up with one of the all-time great Amiga demos, a widescreen feature film style graphical interpretation of Bjork's song 'Big-Time Sensuality'. This new four-disk demo isn't quite up there, as the title suggests, it's more of a show-piece collection of pictures and effects than a whole demo, but it does feature some very pretty pictures and some seductive special effects.

The still artwork is superb on this demo, especially the opening logo and the typewriter key encrusted autumn leaf. The slipping, sliding and stretching woman is novel and mesmerising for such a deceptively simple effect. And the swirling multicoloured column towards the beginning, twisting and melting like a hot stick of rock, is a beauty.

Apart from that there is a lot of fantasy-style artwork, given the spinning pyramid treatment and



the seen through a crystal ball lens effect. Very accomplished and smooth, but more for the technicians than the casual tourist. The whole thing doesn't feel like four disks worth, the last disk is all credits and messages for a start, so if you are on a tight budget you can

save yourself a pound or so by only buying the first three. But the best parts of this demo don't come better, any serious demo freak will want a look.

79%

Game Map Editor V2.21

PD demo/£5 full program

Paul Overy

How do Amiga games manage to contain up to hundreds of different levels on one disk, when that many full-screen IFF files would take up several meagabytes? That's what Paul Overy asks rhetorically in the guide to this AMOS utility. The answer is by building game maps

out of repeated graphic tiles, so a whole level can be made up of a dozen or so tiles, saving large amounts of memory. This game map editor, from the author of AMOS driving game 'High Octane', lets AMOS games programmers design level maps from tiles



quickly and easily.

This is a specialised program aimed at a specialised audience, i.e. AMOS games programmers, but within this limited scope it seems very quick, efficient and well-designed. You can cut out tiles, pick them up, whizz them

around the screen and then plonk them down anywhere you like, at a speed that makes DPaint seem as slow as an elderly slug caught in a freezer. IFF files can be loaded to grab tiles from, and once you have cut out a few tiles, there are a range of options for tweaking and perfecting them before wallpapering them all over your games map.

Another good tool for the group of beleaguered AMOS games programmers, recently abandoned by AMOS's publishers, EuroPress, but continuing the evolution of scrolling shoot-em-ups/driving/platform games etc. ad infinitum, hopefully, nevertheless.

79%

Classic PD

Classic Amiga PD

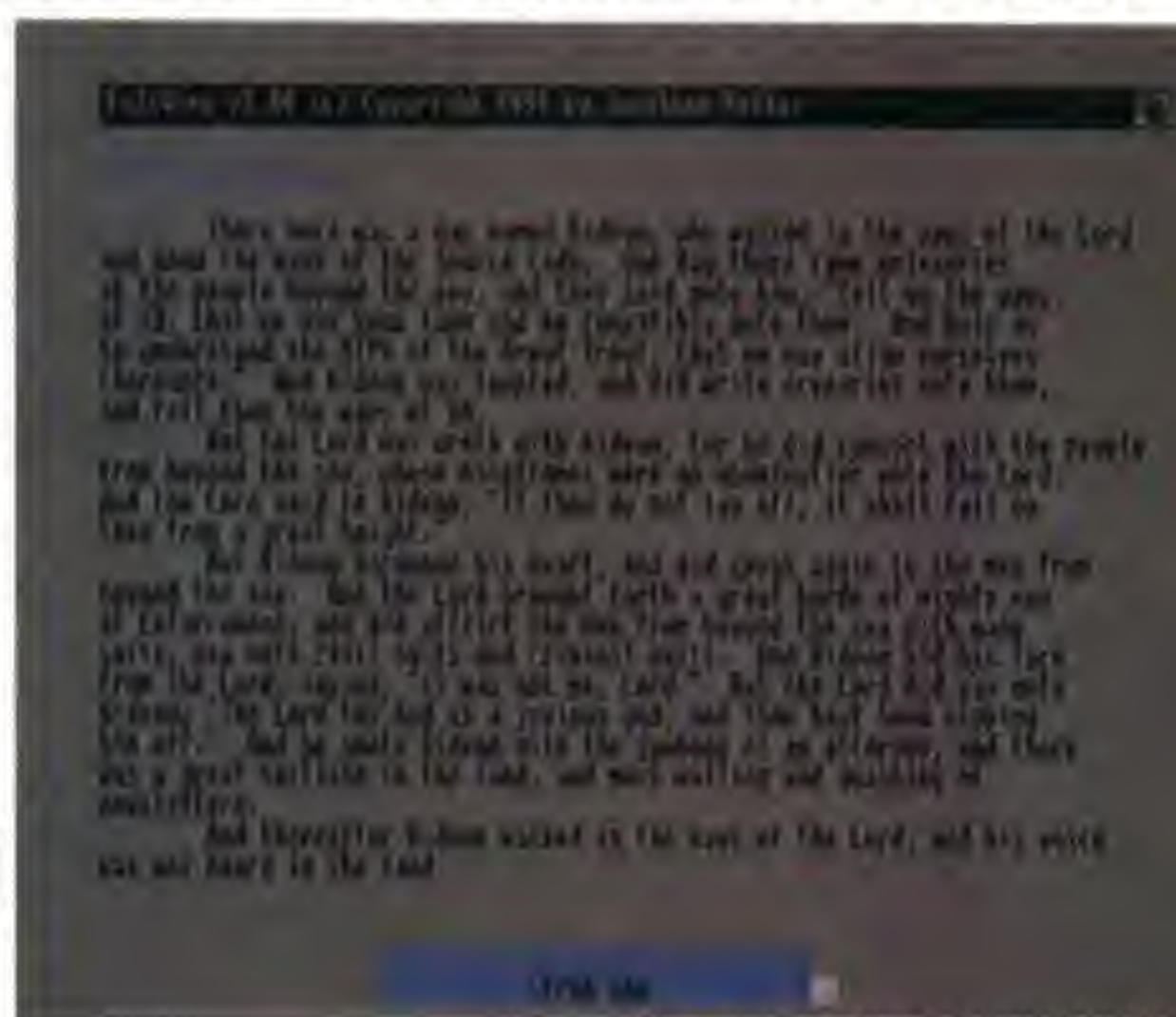
"This guy goes skydiving for the first time. After he jumps out of the plane he counts to ten, pulls the ripcord, and nothing happens. Only a little worried he pulls the cord for the auxiliary parachute, but unfortunately, still no 'chute appears. As he is plummeting towards the earth he sees a woman coming up the

other way. He shouts to her, 'Do you know anything about parachutes?' 'No', she says, 'Do you know anything about gas stoves?'"

Like sex, jokes are better live. But given the amount of porn flying around the Internet there seems to be plenty of demand for sex from computers, so why not jokes? This disk puts together hundreds of jokes about everything from lumberjacks to system analysts, arranged under appropriate headings. As the compiler of this collection warns in his introduction though, this is a compilation of all kinds of jokes, uncensored, and

some of them will be very offensive to some people, if not most people. Some of the jokes did leave a very bad taste in my mouth, but if you can possibly ignore them, there are a few goodies on there as well. Made me laugh, anyway.

81%



1200 GAMES

- GS101 Fears V2 (Down)
- G440 Fears
- G419 Rockets
- G479 Donkey Kong 120
- G489 Ambush Chase 2
- G412 Mymite Attack
- G408 Truck or Treat
- G407 Putty Squad Demo
- G376 Cyberchomp 2
- G398 Mad Fighter 2 (3)
- G356 Masquerade (2)
- G355 Bazaar & Run
- G482 Backman AGA
- G400 Jinx aka (2)
- G447 Tervis Duel aka
- G459 Samurai Sidown
- G358 Zombies II aka
- G264 Aga Megahall
- G101 Aga Tervis
- G217 Motorola In 2 (2)
- G342 Hoi Aga Remix
- G320 2 Player Games
- G345 Evil Insects
- G453 Viper
- G396 K/dike v3 b/d (4)
- G446 Miss/serion (2)
- G000 PSSST AGA
- G000 Cyberman aka
- G235 Mr Brownstone
- G536 Train Driver Sim
- G533 Breaking Bricks 1/3
- G539 Brainburst v1.0
- G545 Doomer (H/D only)

1200 SLIDES

- JS126 Cindy Crawford (4)
- JS141 Niki Taylor (2)
- JS109 Babylon 5
- JS141 Jurassic Park
- JS112 Rod Dwarf (2)
- JS125 Aga Fantasy Pics
- JS011 Star Trek Aga
- JS111 Erika
- JS112 Claudia
- JS057 Aga Manga (4)
- JS103 Pinetec Cakes
- JS059 Lam King Chart
- JS092 Staid Art (2)
- JS100 Scan Is Lame (2)
- JS144 Eternal Slides (2)
- JS138 Jenny Garth gals
- JS121 Aladdin slides (5)
- JS142 Pam Anderson (2)
- JS145 Wild wheels
- JS146 Formula 1 S/S (4)
- JS148 Longest slides (5)
- JS147 Beach babes (4)
- JS154 Danni Minogue (2)
- JS155 Kathy Ireland (2)
- JS157 Kylie Minogue (2)
- JS158 Kylie Minogue (2)

1200 UTILS

- JS141 Lottery Advisor
- JS1761 Spreadsheet v1.0
- JS1762 Spreadsheet v1.1
- JS1763 Spreadsheet v1.2
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Inscript

(part of a low cost Video Titling Package)

G.V. Board

The Amiga is the champion home-titling computer, relatively, because of its price, and absolutely, because of its video signal output and general video-friendly nature. But for anyone filming really low-budget or 'no-budget' films on video, even assuming you have access to an Amiga, you still need some software. Scala do some excellent video-titling software, but most of it costs getting on for a hundred pounds, which is several years living expenses for some video-makers and out of the question.

To plug this gap in the market there are several PD video titling packages available. Now G.Broad has made it easier by collecting

together several useful PD programs into a bundle, available at a minimal charge from him. Included are a video-titler - Inscript - in my opinion the jewel of the collection, plus an alternative titler called Captionator, the PD drawing program Spectrapaint and a couple of Fonts disks.

Inscript is the nearest thing to Scala I've seen in the public domain. The interface is fairly similar and many of the simpler wipes and fades like Venetian Blinds are there. Text can be positioned in any font and size, in a range of colours, anywhere on screen. And IFF files can be used as backgrounds. There's also a Scala style interface for arranging pages into scripts, so



titles, fades, wipes and cuts between backgrounds can be timed, or key controlled, to flow to a rhythm you control. A touch slower than Scala and not quite so polished, but it does the job.

The other disks are really ancillary to the first; the huge variety of fonts is a bonus, and the addition

of Spectrapaint caters for Amiga users who don't even have a paint package.

A great fillip for any video maker being overwhelmed by the expense of video production.

83%

VARK CLI UTILITIES 8

Pixel Digital

Another instalment of the excellent Vark utilities series, this disk has dozens of compact utilities, something for almost everyone. Not only does it include the amazing system request speaker featured on last month's disk, it also contains an update of a utility featured on an **AUI** SuperDisk last year. Because the pointer animating utility on the **AUI** coverdisk didn't work on 1.3 machines, an **AUI** reader reprogrammed it and here it is.

There's also a modern STD code finder, a very small picture viewer utilising datatypes, a program which locks files with a pass-

word, a close workbench utility, a file finder and a utility which lets you replace the text in your workbench title bar. One of my favourites was a simple oscilloscope which can display a range of graphics equaliser-type graphs from music playing into the sampler in the parallel port, in real time. No colours, just white dots or bars dashing up and down, but it gives you something to look at while music's playing.

78%

Contacts for PD reviewed in this AUI

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Paul Overy
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Maidstone
Kent
ME15 7BU
Tel.: 01702 545993

If you have created a masterpiece and you would like it reviewed here or if you own a Public Domain company and want to contribute new and interesting PD, please don't hesitate to send it in. The address is:
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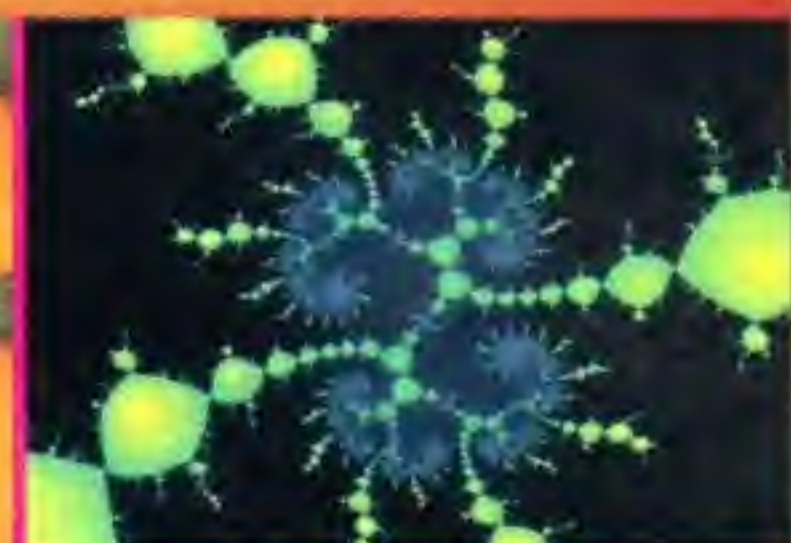
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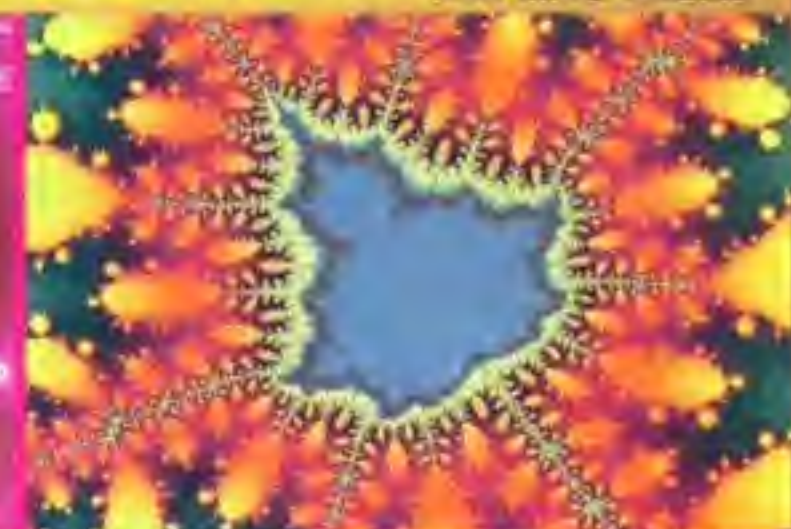
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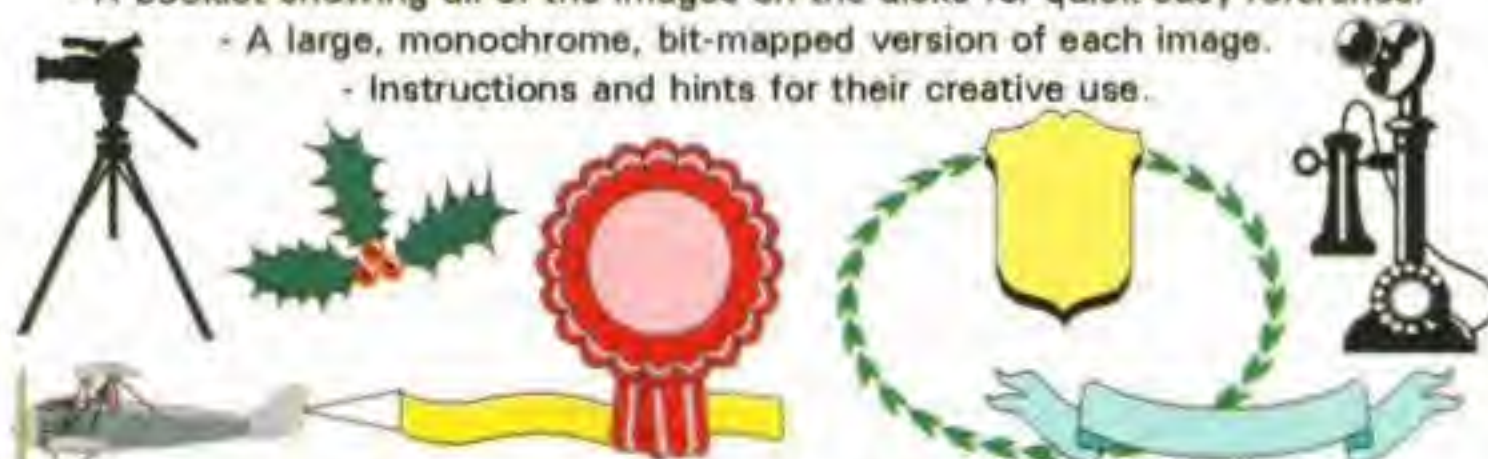
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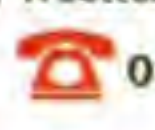
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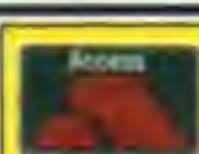
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Write to reply

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Dear Sir/Madam,
Please could you tell me where
I can get a price list of
animated games, such as chess
and other games for Amiga
1200.

Yours sincerely,

R.A. Hall
Essex

Dear R.A.,
The answer is no. I could not. I do
not even know what you mean by
animated games. I would have
thought that chess is one of the
least animated games there is.
I saw a film the other day where
the father and son had been play-
ing a game of chess for THREE
years. Yes, one game, three
years. You call that
animated?

Anyway I'm not an information
service. What kind of a magazine
do think **AUI** is? Forum?
Aeromodellers Yearbook?
Masturbators Manual? This
publication is pure philosophy,
with an international geopolitical
slant. **AUI** is read in places like
Leeds University, the base of the
amazing Wittengenstein-Slob
tendency of today's thinkers.
Price lists? We at **AUI** think of
money as merely a token of the
coming technological revolution,
where Amiga users will be
revered as the real prophets. (Try
reading **AUI** aloud.)

Take the advice of an erstwhile
games player, RAH, stop trying
to throw your cash away on such
slow moving things as
screenbased chess, they will
make you sleepy. Why not try
rocks as pets? They'll keep you
more entertained.
P.S. There is such a thing as PD.
Companies that sell it have
price lists. Not necessarily of
animated games but you can't

have everything in this life, can
you?

And don't call me Sir or
Madam. it confuses me.

Dear **AUI**

It seems that the waiting is
over, and that our beloved
'Amiga' has been rescued from
the brink of obscurity by those
'Knights in shining raincoats',
the men from Escom. I, like
many other Amiga users, have
been following with interest, the
speculation and rumours
surrounding our favourite
machine for many months now,
predominantly through
your own publication and the
occasional P.C mag. So I was
relieved to read that at last a
deal has been struck, and
things in the Amiga world can
again move on.

I was particularly impressed
with your feature on ESCOM in
AUI August, and after an initial
browse through that and other
related material, I felt an
enormous state of emotional
well being, safe in the
Knowledge that the Amiga lives,
and will continue to develop,
and we will all live happily ever
after in Amiga land.

However, being somewhat of
a paranoid disposition, I have
pondered on the ESCOM buy
out, and have reached a rather
sad conclusion.

**'THE AMIGA AS WE KNOW IT,
IS DEAD!'**

If you have either the time or
inclination, then read on, and
I will explain to you why, in my
opinion, I think the above
statement is true

WHY?

Why would a PC manufacturer
buy out Commodore?.

Why would the second largest
PC manufacturer in Europe,
with a 1994 turnover of nearly
£1,000,000,000 buy
Commodore?.

Why would a company with 400
retail outlets (for their 'ESCOM
PC's') in the E.C., plus 200
newly acquired outlets in the
U.K., buy Commodore?.

The answer to these
questions is I am afraid,
obvious. TO SELL MORE PC's!

Let us take a closer look at
ESCOM, and the PC market in
general. If you care to glance at
any PC mag, the most
striking difference between
them and magazines such as
AUI is size. Most PC mags tend
to carry as much as 400 pages
of advertisements for PC's, yes
400 pages of inane ads touting
various combinations of PC
hardware and software. I have
never been bored enough to
count the amount of company's
that manufacture IBM clones,
but the fact that their combined
advertisements fills 400 pages
will give you some idea.

So how can an IBM clone
manufacturer like ESCOM stand
out from the crowd?, how can
they convince us poor
bewildered consumers to pick
their 'Clone' as opposed to
Tom, Dick or even Harry's
'Clone', after all, they all look
the bloody same to me.

The answer is a good '
marketing strategy', and in this
department, those men from
ESCOM have been rather
shrewd. Mr. Schmitt (or perhaps
'Mr. ESCOM', as he owns 51%)
tells us that in his homeland of
Germany, 50% of those 'clones'
are sold in high street stores,
hence ESCOM has 600 shops
throughout Europe, for there
may be a potential customer
base of 50% in any Country. It
seems ESCOM want a big slice
of that cake, and with 200 new
shops, a manufacturing
industry and a £6,000,000
advertising campaign all going
on in the UK, I think they want
not only the cake, but the
bakery too.

So where does 'Commodore'
or 'Amiga' fit in to all this PC

malarkey?. Well it all boils down
to 'marketing' and
'Economics'. ESCOM have
already spent £6,000,000 on
adverts to shift their 'clones',
so what is another £8,000,000 to
shift even more 'clones', as this
is the meagre sum they paid for
our computer, the main reason
being that they are going to
call their high end 'Pentium
clones', Commodore!, and here
is the 'strategy', they can shift
their cheap 'clones' in their
shops, but as the profit margin
is very tight at the lower end
of the market, vast amounts
have to be sold to make any
worthwhile profit. The BIG
profits are in the high end
'Pentium clones', and as Mr.
ESCOM has told us, the name
Commodore possessed
enormous Prestige in Germany,
and the German public would
buy whatever carried that
brand name, and he see's no
reason, given the right product
line (Commodore Pentium
P.C.s), why they and the rest of
Europe would not do so again.

So there you have it, straight
from the ESCOM's mouth, they
have bought our computer for
it's NAME, to help shift 'IBM
CLONES', or to be more
precise, 'Commodore
Pentium IBM clones'.

Ahh, but what about the
'Amiga', I here you ask. Well it
seems that the AMIGA, or
'Amiga Technologies GMBH' to
be more precise, will be run as
a separate entity from ESCOM,
with R&D departments in both
Germany and the USA.

On face value this seems at first
glance to be good, as they have
told us that they will be selling
A1200's and A4000's, with a
promise of upgraded machines
next year, and they will also
resume production of the
A4000T as early as spring 1996.
This all sounds great, but we all
know that it will take at least 18
months to develop a new
'AMIGA' with a new operating
system, and as spring 1996 is
only 7 months away, will it be
wise to resume production of
the already outdated A4000T?,
I think not.

I think we should all ignore
the hype, i.e. vague promises,
and take a look at the
present day realities, for in
the ever changing

world of computers, you have to look at today's deals, and not speculate on a future promise.

Escom will be selling Commodore branded Pentium PCs as early as August this year.

Amiga Technologies have already struck a deal in the US, to put the heart and soul of our computer, into set top boxes for the American consumer. I have no idea of what 'embedded technology' like this will be like, but there is obviously 'profit' to be had, and I am sure these 'boxes' will bear no resemblance to our beloved computer.

As for the resumed production of Amigas before Christmas, I will believe it when I see it, and if they do materialize, I am more inclined to believe that it will be a short production run, to unload unwanted hardware that they acquired as part of their meagre £8,000,000 investment. As this hardware could again be turned into a quick 'profit'.

In simple terms, it all comes down to SUPPLY & DEMAND. ESCOM believe there is a potential demand of 18,000,000 consumers in the UK alone for PCs, and, of course, they are banking on being one of the major suppliers to meet this demand. But 18,000,000 is a mere drop in the ocean compared to the potential demand in under-developed countries for computer technology. Of course, this demand would be for cheaper consumables, as world economic systems contrive to keep these countries poorer than ours. Cue ESCOM, with their latest acquisition, a cheap, tried and tested 'Home/Business computer', that our under-developed countries will no doubt rush to buy. £8,000,000 to me is starting to look like a very good investment indeed, my mind boggles with the potential 'profit' to be had in this area alone.

In conclusion, and returning to my original statement that THE AMIGA AS WE KNOW IT, IS DEAD. Why would a company such as ESCOM, who have grown from a single shop a few

years ago, to a major player in the computer industry, who have generated nearly £1000,000,000 in 1994 by selling other people's products suddenly do a U-turn, and invest time and money into developing a new AMIGA, which would compete against their own 'clones'. I think it would be unsound for them to follow this avenue.

If they do decide to develop a new system (RISC based), then I think this system would be implemented in their clones, and the most we could hope for is Amiga software and hardware emulation within one of their 'Clones', and when you think about it, with all us loyal Amiga users faced with the fact that there will be no new Amiga, and if we remove our 'blinkers' and face up to the fact that the PC and Microsoft etc. have almost achieved 'FIRST WORLD COMPUTER DOMINANCE', then to use and enjoy all the latest applications, we are faced with the inevitable, we will have to buy a PC clone, and upon being faced with a multitude of manufacturers, which one would we choose?, Tom's, Dick's, Harry's! I think not.

We would buy the 'CLONE WITH A HEART', the clone with the Amiga buried deep inside it, the clone with that name dear to us all, Commodore.

And as for ESCOM, I think for them this will turn out to be £8,000,000 very well spent, for if their 'strategy' works in all the areas I have discussed, then they will move into the 'big league'. As for our Mr. ESCOM, well if he retains his 51% controlling stock, then we in Europe will have our very own 'Bill Gates'.

Well, if you have got this far, I thank you for your time, and I hope that I am just paranoid, and that the Amiga will indeed be developed further for us to enjoy for many years to come.

Keep up your good work AUI. It is far superior to any other, but then I think you already know that.

Yours
Karl Gower
Surrey

Dear Karl,
Yours is a very long letter and we try to encourage Write to Repliers to keep it short. But it was so well-argued - whether or not one might agree - that I thought that everyone would be willing to read it all the way through. I'm not going to comment at much length on your analysis of the possible motives and future policy of ESCOM except to say that you are not alone in your view. I have heard very much the same expressed among a number of informed and intelligent computer industry observers. Indeed, our own highly revered and, of course, exceptionally well-informed and intelligent Editor (Yes, I would like some more pages, please and a rise in salary, say to six figures..) suggested something in the same vein recently in his marvellous Amiga Dimension (Seven figures?).

What you have added is the idea that when - if - we give up on the Amiga, we might emigrate to the PC world via the Commodore brand. Yes, familiarity could indeed persuade such a loyal community as that of the Amiga if it were dragged - kicking and screaming, naturally - to the PC to continue to support a poor devil it knew rather than a computer Beelzebub it didn't.

And there are still a lot of us, millions, around the world hanging on to our Amigas, not just for fear of something worse, but because of its magic qualities that we are not convinced the PC yet possesses.

But those millions, as you rightly point out, could be a valuable market for ESCOM. But only if they do right by us. If they don't convince the Amiga community they are genuinely behind the Amiga, were it to disappear then just the opposite might happen and we would take ANY damned PC rather than one from a company that had betrayed the Amiga. That's a thought that ESCOM might consider too.

Dear AUI,
Hi,
I have recently read your magazine and have noted your "The Amiga Dimension" article. Sure the Net carries news to the

users faster than printed material, but I have to say that I don't think you should start to feel remorse at this very early stage in the Net's development.

Even if estimates of 30 million people are correct, that's still less than half the population of the UK spread across the world using the net. Personally, I only know of one other person that is on the net and he uses his father's account anyway.

I am sure that you followed the accounts of the Escom/C.UK/CEI/Dell bidding on comp.sys.amiga.misc as I did and yes, the news was very up to the minute. But, and this is a big but, most of the postings were speculation. I even posted some hasty bits about the situation myself.

The world is not made up of journalists. When you go to a pub, people speculate about one thing after another. The real information, information that has been stripped of speculation, is found in newspapers and mags.

A magazine such as yours will no doubt have made every possible investigation into the buy out, and by the time the relevant issue hits the streets, will contain a much more succinct breakdown of the events with proper information regarding ESCOM.

Sure it may be a bit old hat to users of the net, but I am sure that the vast majority of your readership are not users.

But, I don't think that you should ignore the Internet factor. It is a valuable source of information, but I am sure that your jobs are, for the next couple of years, safe. At least I will be buying your magazine for a long while yet.

Adrian Flaherty
London

Dear Adrian,
Thanks for the encouragement. I just hope you are right about the relationship between paper publications and the emerging world of the Internet. Certainly, the camera didn't destroy painting as was predicted and TV hasn't stopped people going to the cinema or listening to the radio. Maybe each medium

Write to reply

c o n t i n u e d

will have a different role. And perhaps I could still be working for some time to come yet!

Dear **AUI**,
Hello, I'm one of the very few who live in the U.S that uses an Amiga (if you don't count Toaster users), and have fell in love with this machine's performance. I really enjoy your magazine, and I know this address is tech-related, but I have a few questions regarding overseas ordering of products. I once sent away for an upgrade to England, and the only way I was able to send was with English currency (I know, but it was the only way I could think of), and never received any thing. Is there a better way to purchase via mail? Also, what currency should I use? I've heard that I must buy a certain amount in foreign exchange, which makes it kinda impractical if I'm buying a few PD's. Any good news about the Amiga that you've heard since the buyout in April? We here in America are waiting in anticipation. Thanks for your time,

Rudy C. Granados
Salinas,
California

Dear Rudy,
We are glad to hear from the once great and now sadly reduced US Amiga community. It may be that ESCOM will do something about the sales of the Amiga in the USA but at the moment it doesn't seem very likely - no doubt they have enough problems selling the machines in Europe. That means you may have to buy products in the UK or elsewhere in Europe.

The way I would recommend you to pay for them would be by

credit card. Two reasons: first, there is no problem about buying currency. Second, you have some protection against a trader not delivering the goods. I know it will surprise you but very, very occasionally there is a trader in Europe who won't do exactly what he claims he will so you might just be able to claim you money back if it all goes wrong.

But while I give you this advice with the best will in the world, I'm not, as my bank manager - no, not the one who retired with a nervous breakdown - will tell you, a financial wizard.

Still, keep on keeping on with your Amiga, it might yet rise phoenix-like from the ashes in the USA.

Dear **AUI**,
How could you have possibly guessed that Steve Jones of 'HiQ' is my Dad?!
One of the best kept secrets, all out in one issue of an Amiga magazine!!

Having been forbidden to even read such a mag with its divers risque innuendoes, which my Dad has had trouble in explaining to me in mixed company, let alone write to them — Since he is THE POWER in the house, I am in dire trouble, having transgressed by ignoring the all powerful parental ad'vice'.

From now on I will have to resort to reading **AUI** at the rear of the Smith's bookshop, where my friends read Amiga Format!!
Re your ultimate sentence, if you don't know where you are going wrong, how can you expect ME to tell you now?!
Best of luck anyway!
Sincerely yours

Frank G Doswell
Crawley

Dear Frank,
Anyone with a name like Doswell must obviously be the son of a Jones. That was the first clue. Secondly, the use of the word "power" as in "National Power is being sold off to the private sector" is transparently a reference to the HiQ Powerstation. We understand that your Daddy Jones is about to spend millions impressing Amiga users with a subtle but somewhat risky advertising campaign using the clever theme of Nuclear Power.

It's risky because market research has shown that for some reason most people don't like and don't want nuclear power.

That, of course, is incomprehensible to the rest of us Daily Telegraph readers - this month, as you can see from the letter from XXXX above, it's Daily Telegraph month. Like Microsoft, HiQ has bought a newspaper for publicity but while Microsoft purchased one day's edition of The Times, HiQ has bought The Daily Telegraph for a whole month.

But then your dad's cash, made from the privatising of Powergen and other electrical companies makes Bill Gates' bank account look like a kid's piggy bank. Nobody in the Amiga community minds Big Stevie Power, as he is known - except when he makes his hit pop albums under the name of Little Stevie Wonder - dominating the world in this way, he's a popular guy.

Though I should tell you that I do find it objectionable that even on the weather forecast we get publicity for his products because I believe, though I don't have any proof, that he has been making Powergen pay to get the weather forecast wrong - hence that slogan that they say every night "Frank Doswell's Dad doesn't give a toss what the weather's like. He'll go on producing Powerstations anyway." I suppose he does it not only for publicity but so that he can chortle away in his palatial mansion in Bedfordshire. His peculiar sense of humour, as I'm sure you must know, is renowned. I personally find very little in this troubled computer-mad world funny. I think we should all take life very seriously, especially people like me and your dad who wield immense and influential power.

By the way, please don't inform the rest of the Daily Telegraph readership about what goes on at the rear of the of Smith's bookshops, they might force their wheelchairs and Zimmer frames in there and want to join in, a last desperate attempt to recapture their debauched youth before the Boer War. Then, as **AUI** readers will doubtless know, "Formatting" was all the rage for those who could afford it.

However, I recently attended a course called "Residential Care for MS-Dos Users and how to deal with their Unusual Sexual Problems" organised by the noted geriatric sexologist Professor Kate Williams - a name sometimes used by a journalist probably not known to respectable **AUI** readers, called Martin Witton. There I learned that "Formatting" has long been regarded as not only depraved but worthy of a health warning particularly for those over the age of 43. Fortunately it seems to have gone out of fashion anyway. So please don't remind wrinklies of that age what they used to get up to. If you want to go on reading **AUI**, don't do it like that. I will arrange to have you sent a copy each month completely free. Just contact our Subscriptions department and get your Mum to send a cheque for a couple of thousand pounds to cover my expenses. Your Dad will never miss a small amount like that.

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